

CONSOLIDATED OIL & GAS CO. NAVAJO
SW SW 2-41N-28E Apache County, AZ

P-M

(over)

NO.	FROM	TO	RESULTS
			SEE COMPLETION REPORT FOR DETAILS OF 6 DSTs.

[illegible][illegible]

DATE STARTED - COMPLETED		WORK PERFORMED	NEW PERFORATIONS

[illegible]

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

DESIGNATE TYPE OF COMPLETION:

New Well ☒ Work-Over ☐ Deepen ☐ Plug Back ☐ Same Reservoir ☐ Different Reservoir ☐ Oil ☒ Gas ☐ Dry ☐

DESCRIPTION OF WELL AND LEASE

Operator: Consolidated Oil & Gas, Inc. Address: Suite 1300, 1860 Lincoln, Denver, Colorado
Federal, State or Indian Lease Number or name of lessor if fee lease: Navaajo #7 (#14-20-603-226) Well Number: 2-41-28-13 Field & Reservoir: E. Boundary Butte - Lower Paradox
Location: C SW SW Sec 2, T-41N, R-28E County: Apache
660' FSL & 660' FWL
Sec. TWP-Range or Block & Survey: Sec. 2, T-41N, R-28E

Date spudded: 12/20/68 Date total depth reached: 1/13/69 Date completed, ready to produce: 7/6/69 Elevation (DF, RKB, RT or Gr.): 5363 Gr. 5375 feet Elevation of casing hd. flange: 5363 feet
Total depth: 5900' P.B.T.D.: 5865' Single, dual or triple completion?: Dual (One Prodn., One SWD) If this is a dual or triple completion, furnish separate report for each completion.
Producing interval (s) for this completion: 5224' - 5228' - Lower Paradox Rotary tools used (interval): All (0 - 5900') Cable tools used (interval): None
Was this well directionally drilled?: No Was directional survey made?: No Was copy of directional survey filed?: --- Date filed: ---

Type of electrical or other logs run (check logs filed with the commission): Neutron Porosity
BHC Sonic, GR, Movable Oil Plot, Dual Induction, Laterlog, Microlaterlog Date filed: 1/29/69

CASING RECORD

Casing (report all strings set in well—conductor, surface, intermediate, producing, etc.)

Purpose	Size hole drilled	Size casing set	Weight (lb./ft.)	Depth set	Sacks cement	Amt. pulled
Surface	12-1/4"	9-5/8"	32 lbs.	320'	200 sacks	---
Prodn.	8-3/4"	7"	20 & 23 lbs	5899'	705 sacks	---

TUBING RECORD

LINER RECORD

Size	Depth set	Packer set at	Size	Top	Bottom	Sacks cement	Screen (ft.)
2-3/8 in.	4840 ft	4840 See Attached Sketch	5150	None ft.	---	---	---

PERFORATION RECORD

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

Number per ft.	Size & type	Depth Interval	Amt. & kind of material used	Depth Interval
4	JSPF	5224' - 5228'	500 gals. 15% HCL 2000	5224' - 5228'
2	JSPF	4897' - 4909'	mud acid & 300 gals 15%	4897' - 4909'
4	JSPF	4739' - 4743'	HCL. cmt. squeezed w/50W	4739' - 4743'
4	JSPF	4739' - 4743'	INITIAL PRODUCTION SK See Attached	4739' - 4743'

Date of first production: 1/25/69 Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump): Swabbing after perforating

Date of test	Hrs. tested	Choke size	Oil prod. during test	Gas prod. during test	Water prod. during test	Oil gravity
1/25/69	24 hrs.	Rod Pump	16 bbls.	27.5 MCF	83 bbls.	39.0° API (Corr)
Tubing pressure: Rod Pump 10 psi			Cal'd rate of Production per 24 hrs. 16 bbls.	Gas 27.5 MCF	Water 83 bbls.	Gas-oil ratio 1.720 CFB

Disposition of gas (state whether vented, used for fuel or sold): used for fuel

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am a Petroleum Engineer

Consolidated Oil & Gas, Inc. (company), and that I am authorized by said company to make and report that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

July 23, 1969

Date

Signature

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

Well Completion or Recompletion Report and Well Log

File One Copy

Form No. 4

Permit No. 481

(Complete Reverse Side)

DETAIL OF FORMATIONS PENETRATED

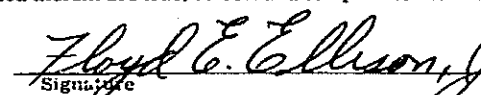
DETAIL OF FORMATIONS PENETRATED			
Formation	Top	Bottom	Description
Lower Ismay	4649'	4717'	DST #1 - 4649'-4717' (Lower Ismay). Pre-Open 15 min.
"	4650'	4782'	--good blow, no gas to surface. SI 60 min. Final
Akah	4887'	4907'	open 60 min.-- opened w/strong blow, remained strong
"	4887'	4907'	thruout. FSI 60 min. Recovered 730' highly gas cut
"	4887'	4907'	and slightly oil cut mud. Pressures: HP 2266/2266 psi,
Lower Paradox	5208'	5255'	FP 44-132/175-263 psi, SIP 1746/1486 psi.
			DST #2 - 4650'-4782' -- coming out of hole. Bit 10 in
			at 4234' (548' in 73 hrs.) Open 15 min, SI 1 hr., open
			1-1/2 hr., SI 1 hr. HP 2261 psi, IF 160-186 psi,
			FF 106-293 psi, FSIP 1331 psi. Recovered 780' highly
			gas cut mud.
			DST #3 - 4886'-4907' (Akah) Opened tool for 15 min.,
			SI 30 min., open 1 hr, SI 1 hr. Tool opened w/good
			blow on IF, weak blow and dead in 5 min. on FF.
			IH 2382 psi, FH 2382 psi. IF 45.9-321.0 psi, FF 2061.8-
			1907.2 psi. ISIP 2061 psi, FSIP 1924.25 psi.
			Recovered 560' drilling mud.
			DST #4 - 4887'-4907'. Tool opened w/strong blow,
			dead 1 hr. 6 min. By-passed tool and reopened.
			Opened w/good blow, dead in 1 hr. 11 min. SI 1 hr.
			Pulled out of hole w/test tool, recovered 930'
			drilling mud and 150' very slightly gas cut mud.
			IH 2382 psi/ FH 2382 psi. FP on first test: 459/1764
			psi; FP on second test: 711/1696 psi. FSIP 1627 psi.
			DST #5 - 4887'-4929'. Tool opened w/strong blow.
			Gas to surface in 42 min. Well dead in 1 hr. 55 min.
			Obtained gas sample at surface. By-passed tool and
			reopened w/no blow. Well completely dead. Ran 30
			min. SIP. Recovered 720' gas cut mud, 2230' gas cut
			salt water w/sulphur odor, 270' gas and water cut
			mud. Total recovery: 3220'. IHP 2367 psi, FP (2hrs.
			30 min.) 493/1464 psi, FSIP 1464 psi, FHP 2314 psi.
			DST #6 - 5208'-5255'. Preflow 15 min., ISI 30 min.
			open 180 min., FSI 60 min. Preflow: opened weak,
			increased to strong at end. Final open: opened strong
			(gas to surface in 17 min., steady thruout--too small
			to measure--will burn.
			Pressures:
			I
			F
			HP 2610 2519
			(15 min.) Preflow 137.6 183.5
			(18 min.) Final flow 183.5 458.7
			SIP 1649.4 1649.9
			Sampler info.: 400 psi chamber press. 1600 cc fluid:
			.0648 cu. ft. gas, 60 cc oil, 1540 cc. water
			(56,250 ppm chloride), mud 400 ppm chloride.
			Recovery: 270' free oil, 90' mud cut oil, and 720'
			oil cut water (estimated 50% oil); for a total of
			1080'.

* Show all important zones of porosity, detail of all cores, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

INSTRUCTIONS:

Attach drillers log or other acceptable log of well.

This Well Completion or Recompletion report and well log shall be filed with the State of Arizona Oil & Gas Conservation Commission not later than thirty days after project completion.

PLUGGING RECORD					
Operator Consolidated Oil & Gas, Inc.			Address 1860 Lincoln St., Denver, Colo. 80203		
Federal, State, or Indian Lease Number, Navajo No. 7 or lessor's name if fee lease. (#14-20-603-226)			Well No. 2-41-28-13 Field & Reservoir East Boundary Butte, Lower Paradox		
Location of Well 660' FSL & 660' FWL, Sec. 2, T41N, R28E (C-SW SW)			Sec-Twp-Rge or Block & Survey		County Apache
Application to drill this well was filed in name of Consolidated Oil & Gas, Inc.		Has this well ever produced oil or gas Yes		Character of well at completion (initial production): Oil (bbls/day) 16 Gas (MCF/day) 27.5 Dry? -	
Date plugged: October 15, 1974		Total depth 5900		Amount well producing when plugged: Oil (bbls/day) None - used as SWDW Gas (MCF/day) - Water (bbls/day) -	
Name of each formation con- taining oil or gas. Indicate which formation open to well- bore at time of plugging		Fluid content of each formation		Depth interval of each formation	
Lower Paradox (open)		Oil & water		(perfs. 5224-28')	
Akah (open)		Water (used for SWD)		4888-5512(perfs 4897-4909)	
Desert Creek (open)		Oil & water		4726-4888(perfs. 4739-43)	
				420-270. 25 sx. 50'-surface.	
CASING RECORD					
Size pipe	Put in well (ft.)	Pulled out (ft.)	Left in well (ft.)	Give depth and method of parting casing (shot, ripped, etc.)	Packers and shoes
9-5/8	320	0	320	-	
7	5899	1300	4599	Shot	
2-3/8	4840	3828	1012	Pulled in two	
2-3/8	5150	3858	1292	Pulled in two Baker Model D @ 5150 & Baker Model FA w/parallel flow tube @ 4840'.	
Was well filled with mud-laden fluid, according to regulations? Yes				Indicate deepest formation containing fresh water. Coconino	
NAMES AND ADDRESSES OF ADJACENT LEASE OPERATORS OR OWNERS OF THE SURFACE					
Name		Address		Direction from this well:	
Merrion & Bayless		Farmington, New Mexico		Has mineral lease	
Navajo Tribe				Has surface	
In addition to other information required on this form, if this well was plugged back for use as a fresh water well, give all pertinent details of plugging operations to base of fresh water sand, perforated interval to fresh water sand, name and address of surface owner, and attach letter from surface owner authorizing completion of this well as a water well and agreeing to assume full liability for any subsequent plugging which might be required.					
Use reverse side for additional detail.					
CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the <u>Area Production Manager</u> of the <u>Consolidated Oil & Gas, Inc.</u> (company) and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.					
November 12, 1974 Date		 Signature			
RECEIVED					
Permit No. 481		NOV 18 1974 O & G CONS. COMM. STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Plugging Record File One Copy Form No. 10			

APPLICATION TO ABANDON AND PLUG

FIELD East Boundary Butte

OPERATOR Consolidated Oil & Gas, Inc. ADDRESS 1860 Lincoln St., Denver, Colo. 80203

Federal, State, or Indian Lease Number Navajo #7 (#14-20-603-226) WELL NO. 2-41-28-13

or Lessor's Name if Fee Lease

SURVEY T41N, R28E SECTION 2 COUNTY Apache

LOCATION C SW SW Section 2, T41N, R28E

660' FSL 660' FWL

TYPE OF WELL Dual (SI Oil & SWD) TOTAL DEPTH 5900

(Oil, Gas or Dry Hole)

ALLOWABLE (If Assigned)

LAST PRODUCTION TEST OIL 3 (Bbls.) WATER 76 (Bbls.)

GAS 1 (MCF) DATE OF TEST 8-31-69

PRODUCING HORIZON Lower Paradox PRODUCING FROM 5224 TO 5228

Salt Water Disposal Horizon Akah Perforations 4897 to 4909

1. COMPLETE CASING RECORD

9-5/8" 32# set @ 320' w/200 sacks

7" 20# & 23# set @ 5899' w/705 sacks

Perforations 5224-5228' (Lower Paradox) shut in oil zone

Model "D" packer @ 5150' w/flapper valve

Perforations 4897-4909' (Akah) salt water injection zone

Model "FA" packer @ 4840'

Perforations 4739-4743 (Desert Creek) Temp. Abd. oil zone

2. FULL DETAILS OF PROPOSED PLAN OF WORK

Squeeze Lower Paradox perfs 5224-28 thru Model "D" @ 5150' w/30 sacks

Spot 100 sacks cement & squeeze perfs 4739-43 & 4897-4909 leaving top of cement no

lower than 4675'.

Place 200' cement plug with 100' in and 100' out of 7" casing stub (60 sacks)

Place 150' cement plug with 50' in and 100' out of 9-5/8" surface casing (60 sacks)

Place 50' cement plug in top of 9-5/8" casing (25 sacks)

Use an approximate 9 lb/gal mud to fill hole and spot between plugs

Install regulation dry hole marker, clean up and level location.

If well is to be abandoned, does proposed work conform with requirements of Rule 202? Yes If not, outline proposed procedure above.

DATE COMMENCING OPERATIONS Approximately September 5, 1974

NAME OF PERSON DOING WORK Leo Case ADDRESS P. O. Box 2038, Farmington,

New Mexico 87401

CORRESPONDENCE SHOULD BE SENT TO Floyd E. Ellison, Jr.

Name

Title Area Production Manager

Address 1860 Lincoln Street, Denver, Colorado 80203

Date August 14, 1974

Date Approved 8-21-74

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

By: [Signature]

Permit No. 481

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

Application to Abandon and Plug

File Two Copies

Form No. 9

RECEIVED

AUG 19 1974

O & G CONS. COMM.

DATE: July 10, 1974

FROM: W. E. Allen, Director--Enforcement Section

RE: Franco Western Navajo #1	Consolidated #1 Navajo
22-T41N-R28E	2-T41N-R28E
Apache County, Permit #32	Apache County, Permit #481

Leo Case called this date for permission to plug the above referenced wells. He will submit Form 9, Application to Plug and Abandon before work starts. Phil McGrath with U.S.G.S. has approved the plugging program.

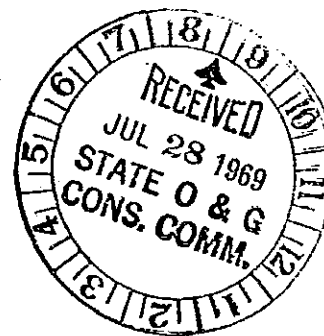
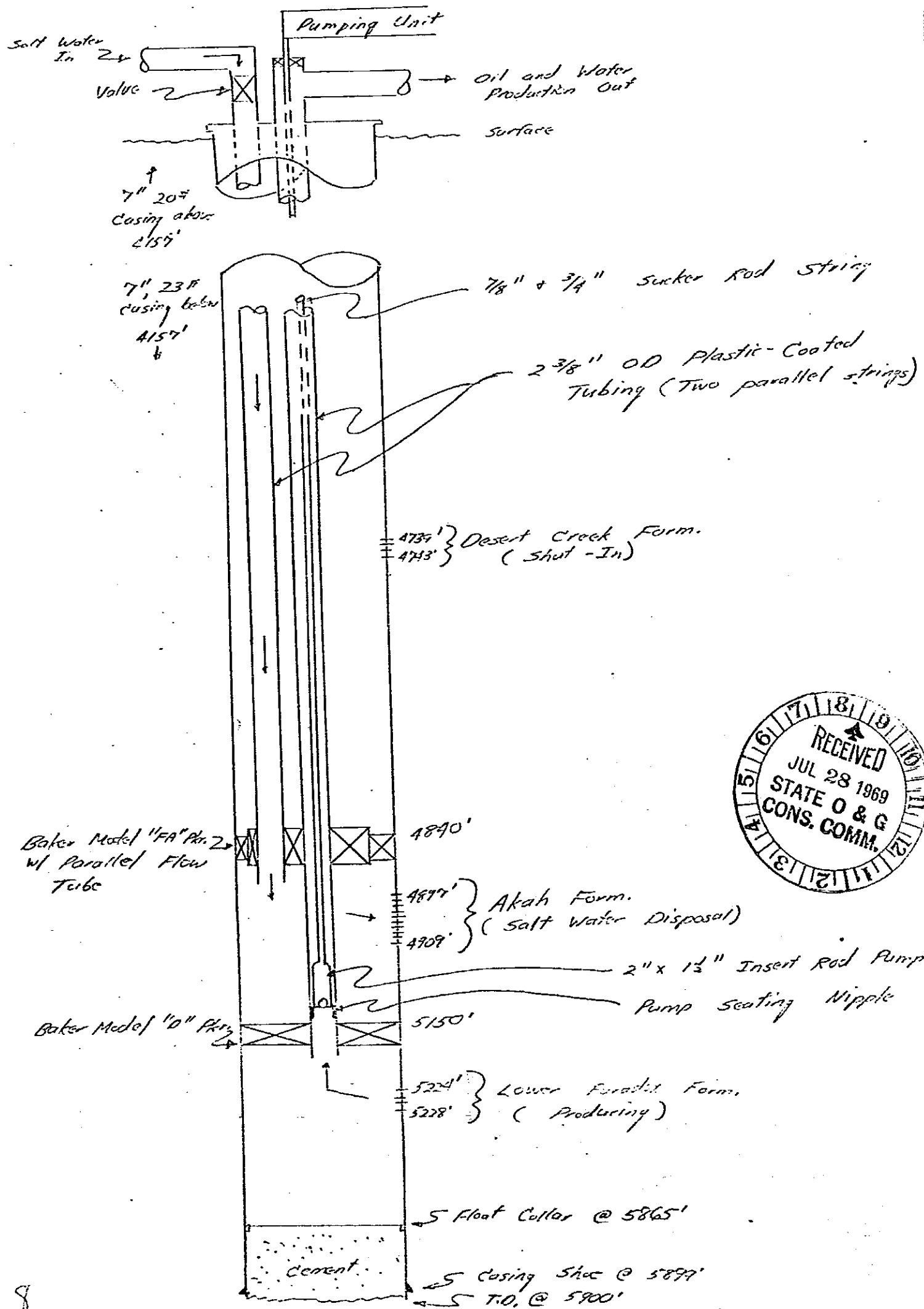
Consolidated Oil & Gas sold all their wells in Arizona to Merrion and Bayless. August 1, 1974 is the tentative date for Merrion and Bayless to assume operations of Consolidated wells. The Navajo No. 1 is presently used by Consolidated as a water disposal well. Before this well can be plugged, it will be necessary for Merrion & Bayless to make other arrangements for disposal of water presently produced from the Consolidated wells.

WEA/r1b

INJECTION WELL REPORTS

Filed in cabinet of Enforcement Director

Sketch of
Multiple Completion
Navajo #1 (2-41-28-13)
East Boundary Butte Field
Apache County, Ariz.
July 15, 1969



Well: Navajo #7 (#14-20-603-226)
Apache County, Arizona

Acid Treatment Continued:

Depth Interval:

Amount & Kind of Material Used:

4739' - 4743'
4739' - 4743'

50 gals. Hyflo in 50 gals. lease crude
5000 gals. 10% MSA acid.



~~Handwritten~~
X-Chrono

April 18, 1969

MEMO TO: File #481
Consolidated Oil & Gas #1 Navajo
T
File #490 X
Consolidated Oil & Gas #3 Navajo

FROM : John Bannister

Wayne Rogers, Consolidated Oil & Gas of Denver, called this date requesting permission to bring full stream of oil from the Navajo #3 location in the NE/4 SW/4 of Sec. 3, T41N, R28E, down to the tank battery for the Navajo #1 Well located in 481 the SW/4 SW/4 of Sec. 2, T41N, R28E. The two wells are on the same Navajo Indian lease and thus no lease lines would be crossed. Inasmuch as there is a difference in working interest ownership, the #3 well flow will be metered prior to entering the tank battery. From the tank battery the oil will be trucked into a pipeline connection. This arrangement will be ended as soon as Four Corners Pipe Line provides a connection to Consolidated.

B
Verbal permission was given this date for this procedure.
This will be confirmed in writing.

10 481

TEMPORARY OPERA CERTIFICATE OF COMPLIANCE AND AUTHORIZATION TO TRANSPORT OIL OR GAS FROM LEASE		
Federal, State or Indian Lease Number, or lessor's name if fee lease	Field	Reservoir
14-20-603-226, Navajo Tribal	East Boundary Butte	Desert Creek
Survey or Sec-Twp-Rge	County	State
Sec. 3, T.41 N., R.28 E.	Apache	Arizona
Operator Consolidated Oil & Gas, Inc.		
ADDRESS ALL CORRESPONDENCE CONCERNING THIS FORM TO:		
Street	City	State
1860 Lincoln Street	Denver	Colorado 80203
Above named operator authorizes (name of transporter)		
Transporter's street address	City	State
Field address		
Oil, condensate, gas well gas, casinghead gas		
To transport	% of the	from said lease.
OTHER GATHERERS TRANSPORTING FROM THIS LEASE ARE AS FOLLOWS:		
Name of gatherer	% transported	Product transported
The Permian Corporation	100	Oil
Indicate whether or not this certificate is for a new lease. If not a new lease, indicate whether or not it is a change of operator, change of lease name, change of gatherer, or a consolidation or subdivision of leases and give effective date of change. New wells, Permits #481 and #488, pending evaluation of development and feasibility study of pipeline construction to connect with Four Corners Pipe Line Company.		

The undersigned certifies that the rules and regulations of the State of Arizona Oil & Gas Conservation Commission have been complied with in drilling and producing operations on this lease, except as noted above, and that the above transporter is authorized to transport the above specified percentage of the allowable oil or gas produced from the above described property, and that this authorization will be valid until further notice or until cancelled by the State of Arizona Oil & Gas Conservation Commission.

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Production Accountant of the Consolidated Oil & Gas, Inc. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

April 9, 1969

Date

Signature

Date approved:

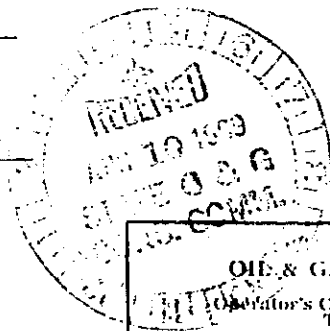
4/11/69
STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

By:

Permit No.

481-488

490



STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Operator's Certificate of Compliance & Authorization to Transport Oil or Gas from Lease File Two Copies Form No. 8
--

Consolidated called
(Bill Green)

4-10-69

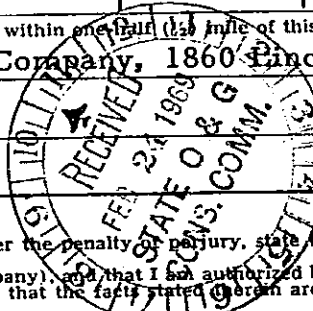
JS

Well on pump.

pumped: 14 Bbls. Crude oil } 24 hrs.
+ 5 Bbls. water

prep to re-acidize Des Ck. perforations.

#481

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION				
Operator Consolidated Oil & Gas, Inc.		Address 1860 Lincoln Street, Denver, Colorado		
Federal, State or Indian Lease Number. or lessor's name if fee lease 14-20-603-226 (Navajo #7)	Well No. 2-41-28-13	Field East Boundary Butte	County Apache	
Location G SW SW Section 2; 660' FSL & 660' FWL		SEC-TWP-RGE or Block & Survey Section 2, T41N-R28E		
CASING AND TUBING DATA				
Name of string	Size	Length	Cement Data	
Surface Casing	9-5/8" 32#	Set at 320'	200 sacks -- cement circulated to surface	
Intermediate	7" 20# & 23#	Set at 5899'	705 sacks displaced through casing shoe and 70 sacks displaced thru perms. at 2400'	
Long String				
		Name, Model and Depth of Tubing Packer		
Tubing (two strings)	2-3/8" 4.7#	Set at 4840' & 4750'	Baker Model "FA" at 4840' (see attached sketch)	
Name of Top and Bottom of Injection Zone Hermosa: Top 4897', bottom 4909'				
Is Injection through Tubing, Casing or Annulus? Tubing		Perforations or Open Hole? Perforations		Is this a new well Drilled for Disposal? New well -- dual completion
List all Cement Squeeze Operations, Giving Interval and Number Sacks Cement Squeezed perforations 4739-43' with 50 sacks cement				
Is Injection Zone Productive of Oil or Gas in This Field? yes (approx. one mile NW)		Depth of Deepest Fresh Water Zone 2355'		Depth of Shallowest Productive Zone 4726'
Anticipated Daily Injection Volume (bbbls.) 50		Minimum 500	Maximum 500	Open or Closed System? closed
Is Injection to be by Gravity or Pressure? Gravity		Approx. Pressure (Psi) 0		Source of Water to be Injected Perfs. 4739-43'
Are there any other Salt Water Disposal Wells using this same Zone in this Field?		Yes or No No	If so name one such well below -- --	
Name of Operator of Disposal Well in same zone --		Lease Name --		Well No. --
Is this well so cased and completed that water can enter no other formation than the above set out injection zone?		Yes or No yes	Have notices of this application been mailed or given to all operators within 1/2 mile of this injection well? Discussed with Humble -- see attached waiver)	
List names and addresses of all operators within one-half (1/2) mile of this injection well: Humble Oil & Refining Company, 1860 Lincoln Street, Denver, Colorado 80203				
				
<p>CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the <u>a Petroleum Engineer</u> of the <u>Consolidated Oil & Gas, Inc.</u> company, and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated herein are true, correct and complete to the best of my knowledge.</p>				
<p>INSTRUCTIONS:</p> <p>1. Attach a complete full-scale electrical log of this well, if available. Indicate on electrical log, or by other evidence, the base of fresh water zones in this field.</p> <p>2. Attach waivers from all operators within one-half (1/2) mile of injection well, or copies of letters notifying such operators of this application. Also attach waiver from surface owners of land on which the disposal well is located, or copy of letter from operator making this application notifying such surface owners of this application and requesting waivers.</p> <p>3. Should all necessary waivers not accompany application, the State of Arizona Oil & Gas Conservation Commission shall hold such application for a period of ten (10) days from date of receipt. If, after said ten (10) day period, no protest or request for a hearing is received, the application will then be processed.</p>		<p>Signature <u>D. E. Smink</u></p> <p>Date <u>February 21, 1969</u></p>		
<p>Date approved <u>3/19/69</u></p> <p>STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION</p> <p>By <u>John Bannister/gk</u></p>		<p>STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION</p> <p>Application To Dispose of Salt Water By Injection Into a Porous Formation</p> <p>File Two Copies</p>		
Form No. 15				
<p>Permit No. <u>481</u> Case # <u>35</u> Order # <u>36</u></p>				

BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF ARIZONA

IN THE MATTER OF THE HEARING CALLED
BY THE OIL AND GAS CONSERVATION
COMMISSION OF THE STATE OF ARIZONA
FOR THE PURPOSE OF CONSIDERING:

CASE NO. 35

ORDER NO. 36

THE APPLICATION OF CONSOLIDATED OIL
AND GAS, INC., FOR AUTHORITY TO PRODUCE
PETROLEUM FROM THE DESERT CREEK ZONE
AND TO DISPOSE OF SALT WATER PRODUCED
FROM THE DESERT CREEK ZONE BY INJECTION
INTO THE AKAH ZONE IN THE NO. 1 NAVAJO
WELL LOCATED 660 FEET FROM THE SOUTH
AND 660 FEET FROM THE WEST LINE OF
SECTION 2, TOWNSHIP 41 NORTH, RANGE
28 EAST, APACHE COUNTY, ARIZONA,
THROUGH PERFORATIONS IN THE AKAH ZONE.

ORDER OF THE COMMISSION

BY THE COMMISSION

This cause was considered at 10:00 a.m. on March 19, 1969 at
Phoenix, Arizona, by the OIL AND GAS CONSERVATION COMMISSION of the
STATE OF ARIZONA, hereinafter referred to as the COMMISSION.

The COMMISSION, a quorum being present, having considered the
facts presented and being fully advised in the premises, finds as
follows:

FINDINGS:

- (1) THAT the COMMISSION has jurisdiction of the subject matter
thereof.
- (2) THAT Consolidated Oil and Gas, Inc., has made proper ap-
plication to the COMMISSION for approval of its plan to dispose of

salt water in subject well through perforations at a depth from 4897 feet to 4909 feet in the Akah Formation and to so condition the well that oil may be produced and the injection accomplished through the same well bore.

(3) THAT evidence has been submitted showing the consent of all lease owners within a one mile radius of the well to this plan of operation.

(4) THAT to allow Consolidated Oil and Gas, Inc., to proceed as outlined in its plan of operations as submitted during this hearing is to the best public interest of the STATE OF ARIZONA.

(5) THAT on February 26, 1969, the COMMISSION did cause to be issued its Emergency Order No. 4-69 concerning this application and that said Emergency Order No. 4-69 should now be terminated.

(6) THAT the area of Townships 41 and 42 North, Ranges 28 and 29 East, Apache County, Arizona, is geologically suitable for the occurrence of salt waters in the Pennsylvanian Formation and for the disposition of these salt waters into zones within the Pennsylvanian formation.

IT IS THEREFORE ORDERED:

(a) THAT Consolidated Oil and Gas, Inc., is hereby authorized to dispose of salt water in the Consolidated Oil and Gas No. 1 Navajo Well located 660 feet from the south and 660 feet from the west line of Section 2, Township 41 North, Range 28 East, Apache County, Arizona, through perforations from a depth of 4897 feet to 4909 feet in the Akah Formation and to so condition the well that this salt water injection and production of oil from the Desert

Creek Formation may be accomplished in the same well bore, as set forth in the plans submitted by Consolidated Oil and Gas, Inc., in this cause.

(b) THAT within the area of Townships 41 and 42 North, Ranges 28 and 29 East, Apache County, Arizona, administrative approval may be granted for the disposal of salt waters into various zones of the Pennsylvanian Formation upon submission to the Commission of the necessary application together with the necessary supporting data.

(c) THAT Emergency Order No. 4-69 is hereby terminated and shall be of no further force and effect.

DONE at Phoenix, Arizona, on the day and year hereinabove designated.

OIL AND GAS CONSERVATION COMMISSION
STATE OF ARIZONA

(S E A L)

By (Original signed)
Lucien B. Owens, Chairman

ATTEST:

(Original signed)
John Bannister
Executive Secretary

BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF ARIZONA

THE APPLICATION OF CONSOLIDATED OIL AND
GAS, INC., TO DISPOSE OF SALT WATER IN
CONSOLIDATED OIL AND GAS #1 NAVAJO WELL
LOCATED 660 FEET FROM THE SOUTH AND 660
FEET FROM THE WEST LINE OF SECTION 2,
TOWNSHIP 41 NORTH, RANGE 28 EAST, APACHE
COUNTY, ARIZONA, THROUGH PERFORATIONS
INTO THE AKAH FORMATION.

CASE NO. 35
EMERGENCY ORDER NO. 4-69

ORDER OF THE COMMISSION

BY THE COMMISSION

This cause was considered at 11:30 a.m. on February 26, 1969 at
Phoenix, Arizona, by the OIL AND GAS CONSERVATION COMMISSION of the STATE
OF ARIZONA, hereinafter referred to as the COMMISSION.

The COMMISSION, a quorum being present, having considered the facts
presented and being fully advised in the premises, finds as follows:

FINDINGS:

- (1) THAT the COMMISSION has jurisdiction of the subject matter
thereof.
- (2) THAT an emergency does exist and that due to the nature of the
emergency, no public notice is required by law.
- (3) THAT Consolidated Oil and Gas, Inc., has made proper applica-
tion to the COMMISSION for approval of its plan to dispose of salt water
in subject well through perforations at a depth from 4897 feet to 4909
feet in the Akah Formation and to so condition the well that oil may be
produced and the injection accomplished through the same well bore.
- (4) THAT evidence has been submitted showing the consent of all
lease owners within a one mile radius of the well to this plan of opera-
tion and that approval of the Navajo Indian Tribe and the United States
Geological Survey of the submitted plan has likewise been evidenced.

Case No. 35
E.O. No. 4-69
Page 2

(5) THAT undue economic hardship would be caused by an unwarranted delay in granting the COMMISSION'S permission to accomplish this purpose and that to allow Consolidated Oil and Gas, Inc., to proceed as outlined in the evidence submitted during this hearing is to the best public interest of the STATE OF ARIZONA.

IT IS THEREFORE ORDERED:

(a) THAT Consolidated Oil and Gas, Inc., is hereby authorized to dispose of salt water in the Consolidated Oil and Gas No. 1 Navajo Well located 660 feet from the south and 660 feet from the west line of Section 2, Township 41 North, Range 28 East, Apache County, Arizona, through perforations from a depth of 4897 feet to 4909 feet in the Akah Formation and to so condition the well that this salt water injection and production of oil from the Desert Creek Formation may be accomplished in the same well bore.

(b) THAT this order will expire thirty days from the date hereof.

DONE at Phoenix, Arizona, on the day and year hereinabove designated.

OIL AND GAS CONSERVATION COMMISSION
STATE OF ARIZONA

(S E A L)

By (Original signed)
Lucien B. Owens, Chairman

ATTEST:

(Original signed)
John Bannister
Executive Secretary

February 18, 1969

State of Arizona
Oil & Gas Conservation Commission
1624 West Adams - Room 202
Phoenix, Arizona 85007

Attention Mr. James A. Lambert

Re: Waiver to Consolidated Oil & Gas, Inc's
Proposal to Dispose of Salt Water in
Navajo #2-41-28-13, Sec. 2-T41N-R28E
Apache County, Arizona

Gentlemen:

Please be advised that Humble Oil & Refining Company has no objection to the proposal of Consolidated Oil & Gas, Inc. to dispose of approximately 100 barrels of salt water per day into perforations 4,897-4, 909 (478 to 466 ft. above sea level) in the captioned well.

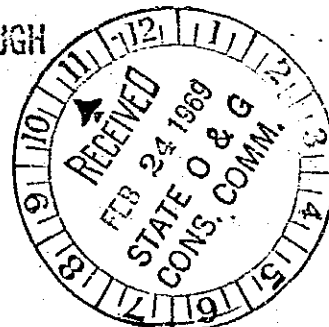
It is understood that the subject well will be so cased and completed that salt water will not be injected (disposed of) into any other strata penetrated by the well and that the completion shall meet any other standards that the Commission has at the present time or may require in the future.

Very truly yours,

COPY ORIGINAL
SIGNED J. ROY DORROUGH

J. Roy Dorough

APPROVED FOR LEGAL
FORIA *[Signature]*



Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 42-R1424

5. LEASE DESIGNATION AND SERIAL NO.

14-20-603-226

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo #7

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

East Boundary Butte

9. WELL NO.

2-41-28-13

10. FIELD AND POOL, OR WILDCAT

East Boundary Butte

11. SEC. T. R. M. OR BLK. AND
SURVEY OR AREA

Section 2, T41N-R28E

12. COUNTY OR PARISH 13. STATE

Apache

Arizona

1. OIL ☒ GAS ☐ WELL ☐ OTHER ☐

2. NAME OF OPERATOR

Consolidated Oil & Gas, Inc.

3. ADDRESS OF OPERATOR

Suite 1300 - 1860 Lincoln St., Denver, Colorado 80203

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface

C SW SW Section 2, T41N-R28E
660' FSL & 660' FWL

14. PERMIT NO.

Arizona 481

15. ELEVATIONS (Show whether DF, RT, CR, etc.)

5375' KB

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐

FRACTURE TREAT ☐

SHOOT OR ACIDIZE ☐

REPAIR WELL ☐

(Other) ☐

PULL OR ALTER CASING ☐

MULTIPLE COMPLETE ☒

ABANDON* ☐

CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐

FRACTURE TREATMENT ☐

SHOOTING OR ACIDIZING ☐

(Other) ☐

REPAIRING WELL ☐

ALTERING CASING ☐

ABANDONMENT* ☐

(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any
proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones perti-
nent to this work.)*

On or about February 26, 1969, Dual-complete well as an oil
well pumping from perforations 4739 - 4743 and as a salt water
disposal well injecting-salt water into perforations 4897 - 4909.

(Please see attached drawing for detail of all proposed equip-
ment, perforations, and swab-test results. Also see attached
plat showing location of all wells within an approximate three-
mile radius.)

It is anticipated that approximately 100 barrels* of salt water
per day may be injected down the long string of tubing into per-
forations 4897 - 4909. Anticipated surface pressure is 0

*Initial injected volume should not exceed 100 barrels water
per day. At a later date it may be desired to increase this
volume.

18. I hereby certify that the foregoing is true and correct

SIGNED

D. E. Smink
D. E. Smink

TITLE Petroleum Engineer

DATE

2/18/69

(This space for Federal or State office use)

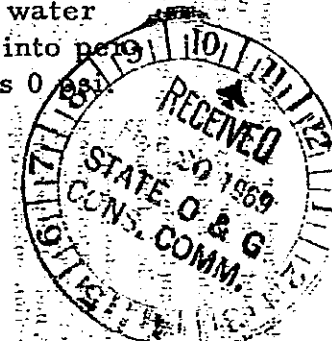
APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

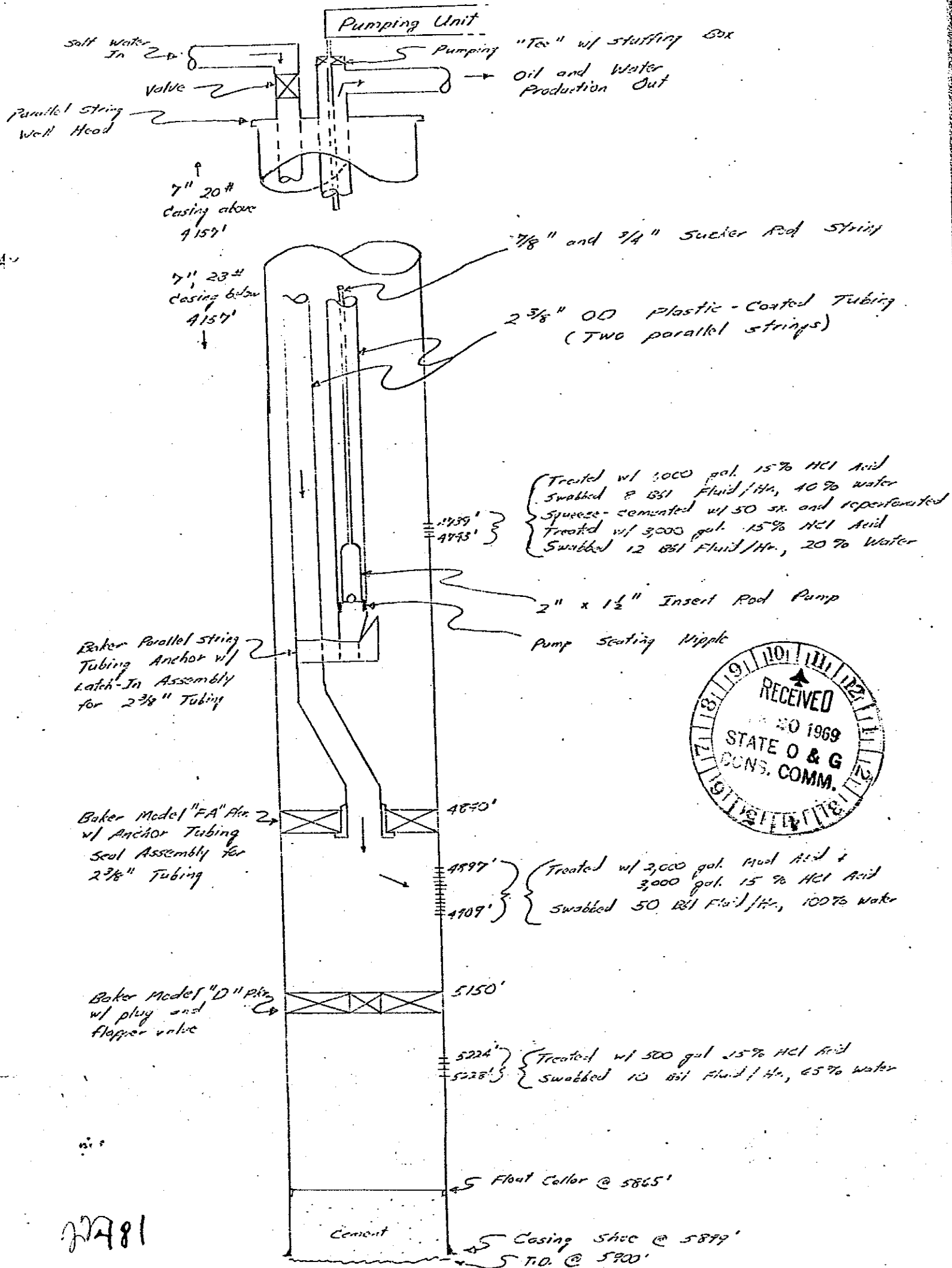
TITLE

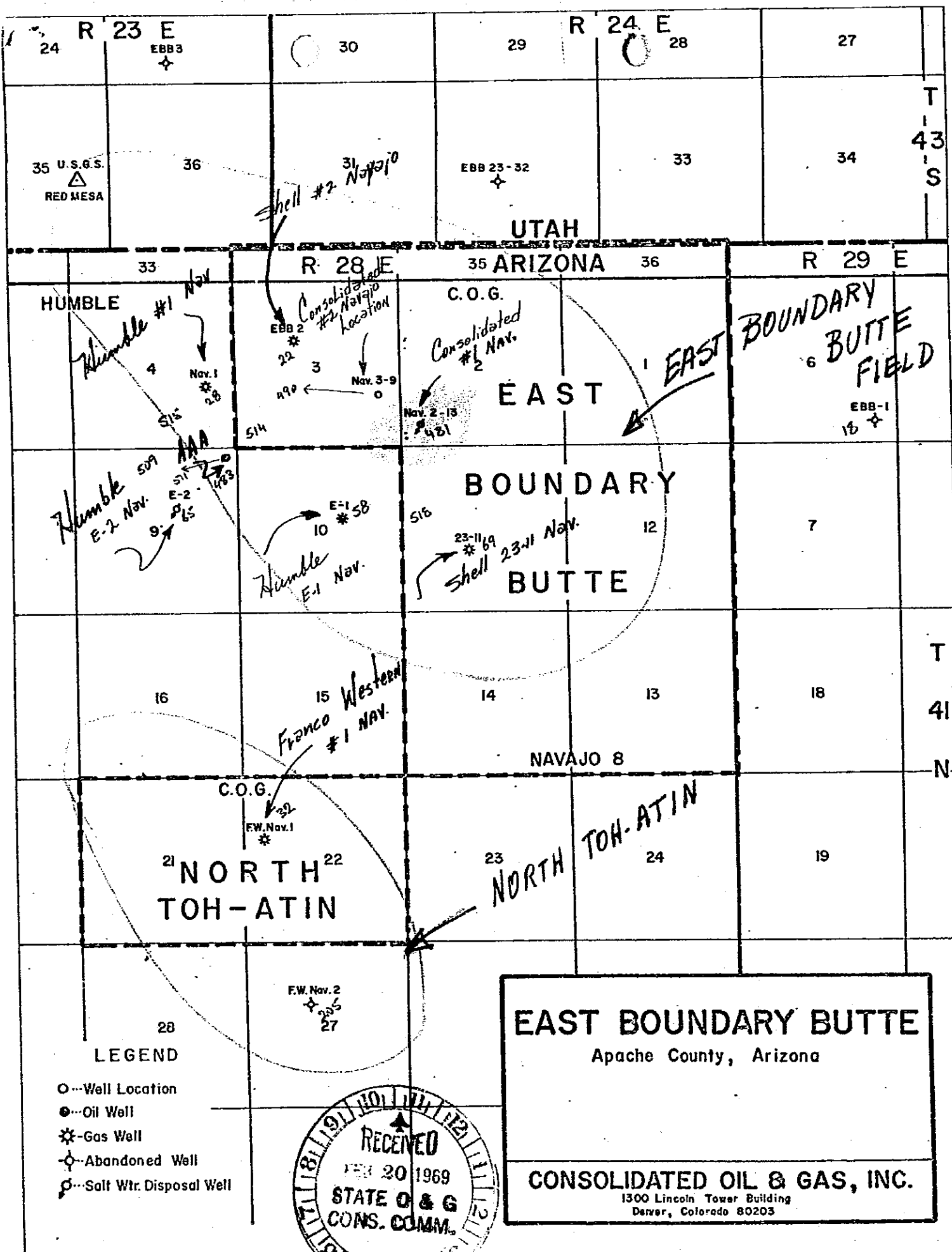
DATE

*See Instructions on Reverse Side



Sketch of Proposed
Multiple Completion
Navajo 2-41-28-15
East Boundary Butte Field
Apache County, Ariz.
Feb. 18, 1969





<u>PERIOD</u>	<u>FORMATION</u>	<u>SCHLUMBERGER TOP</u>	<u>SUBSEA DATUM</u>
Jurrassic	San Raffail Group	Surface	
Triassic	Shinarump	1670'	+ 3705'
Permian	Coconino	1950'	+ 3425
Pennsylvanian	Hermosa	3906'	+ 1469
	Ismay	4613'	+ 762
	Desert Creek	4726'	+ 649
	Akah	4888'	+ 487
	Molas	5512	-135
Mississippian	Leadville	5670'	-295
Devonian	Ouray	5860'	-485

WELL LOGS

A continuous mud gas detector was employed from surface pipe to total depth. (See attached log for zones of hydro carbon shows). In addition to the mud log, a complete suite of logs was run by Schlumberger Well Logging Company. These are listed below.

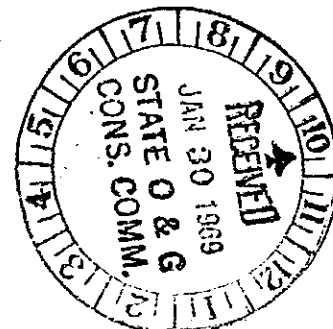
- Dual Induction Laterlog
- Barehole Compensated Sonic - Gamma Ray
- Formation Compensated Density Log
- Sidewall Neutron Porosity Log
- Microlaterlog

DRILL STEM TEST

A total of six (6) drill stem tests were run by the Halliburton Company of Farmington, New Mexico. They are listed below:

- DST #1 (4649-4717)

Tool opened on pre-flow for 15 minutes with a weak blow of air which increased to good. Tool was shut in for



60 minutes for a shut-in test. Tool was opened for a second flow period of 60 minutes with a good blow of air throughout. Tool was shut in for 60 minutes for a final shut-in test. Recovery was 730 feet of slightly oil and gas cut drilling mud.

Initial Hydrostatic - 2266 P.S.I.

Initial Shut - 1746 P.S.I.

Initial Flow - 44 to 132 P.S.I.

2nd Flow - 175 to 263 P.S.I.

Final Shut In - 1486 P.S.I.

Final Hydrostatic - 2266 P.S.I.

DST #2 (4650-4782)

Tool was opened on pre-flow for 15 minutes with a fair blow of air. Tool was shut in for 60 minutes for initial shut-in test. Tool open 90 minutes for second flow period with a fair blow of air and gas to the surface in twelve minutes (flamable). Blow decreased throughout test. Gas was too small to measure. Tool was shut in for 60 minutes for final shut-in test. Recovery was 780' of oil and gas cut mud.

Initial Hydrostatic - 2261 P.S.I.

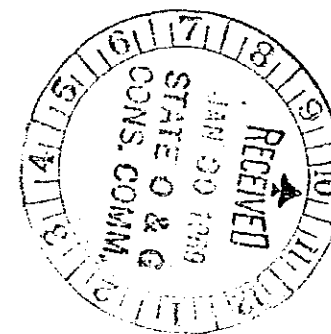
Initial Shut-In - 1597 P.S.I.

Initial Flow - 160 to 187 P.S.I.

2nd Flow - 160 to 293 P.S.I.

Final Shut-In - 1331 P.S.I.

Final Hydrostatic - 2261 P.S.I.



DST #3 (4887-4907)

Tool open 15 minutes on pre-flow with a fair blow of air. Tool closed for 30 minutes for initial shut-in test. Tool open on second flow for 60 minutes with weak blow air which died in 5 minutes. Tool closed for 60 minutes for final shut in. Recovery was 560 feet of drilling mud.

Initial Hydrostatic - 2382 P.S.I.

Initial Shut-In - 2062 P.S.I.

Initial Flow - 46 to 321 P.S.I.

2nd Flow - 2062 to 1970 P.S.I.

Final Shut-In - 1924 P.S.I.

*(Test was declared a mis-run due to plugging.)

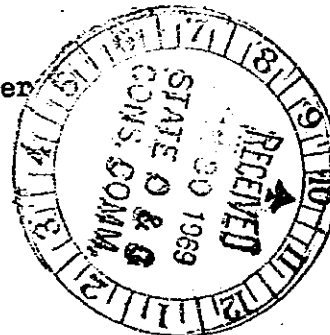
DST #4 (4887-4907) (Rerun)

Tool was opened for 75 minutes with good blow of air which died in 65 minutes. Pulled packers loose and reset tool with good blow air. Tool open on second flow for 135 minutes and then shut in for 60 minutes for final shut-in. Recovery was 1100 feet of drilling mud.

*(Test was declared a mis-run due to plugging.)

DST #5 (4887-4929)

Tool opened for 180 minutes (no initial shut-in) with fair blow air, gas to surface in 42 minutes (too small to measure). Died in 115 minutes. Bypassed after 155 minutes with no blow. Tool closed 30 minutes for final shut-in. Recovery was 3220 feet of fluid - 720



feet gas cut mud plus 2230 feet of gas cut salt water plus
270 feet of gas and water cut mud.

Initial Hydrostatic - 2368 P.S.I.

Initial Flow - 493 to 1464 P.S.I.

Final Shut-In - 1464 P.S.I.

Final Hydrostatic - 2315 P.S.I.

DST #6 (5208-5255)

Tool was opened for 15 minutes pre-flow with weak to
fair blow of air. Tool was closed for 30 minutes initial
shut-in. Tool reopened for 180 minutes with good blow of
air with gas to surface in 17 minutes (too small to measure)
and flowed throughout test. Tool was closed for 60 minutes
final shut-in. Recovery was 1080 feet of fluid -270 feet
free oil plus 90 feet mud cut oil plus 720 feet of oil cut
water.

Initial Hydrostatic - 2611 P.S.I.

Initial Shut-In - 1650 P.S.I.

Initial Flow - 138-183 P.S.I.

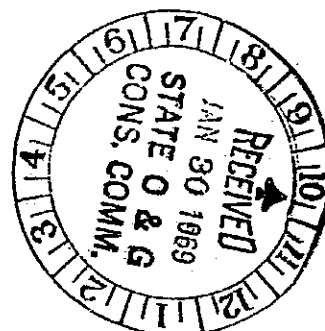
2nd Flow - 183-429 P.S.I.

Final Shut-In - 1650 P.S.I.

Final Hydrostatic - 2519 P.S.I.

Core Analysis:

No cores taken.



DST #3 (4887-4907)

Tool open 15 minutes on pre-flow with a fair blow of air. Tool closed for 30 minutes for initial shut-in test. Tool open on second flow for 60 minutes with weak blow air which died in 5 minutes. Tool closed for 60 minutes for final shut in. Recovery was 560 feet of drilling mud.

Initial Hydrostatic - 2382 P.S.I.

Initial Shut-In - 2062 P.S.I.

Initial Flow - 46 to 321 P.S.I.

2nd Flow - 2062 to 1970 P.S.I.

Final Shut-In - 1924 P.S.I.

*(Test was declared a mis-run due to plugging.)

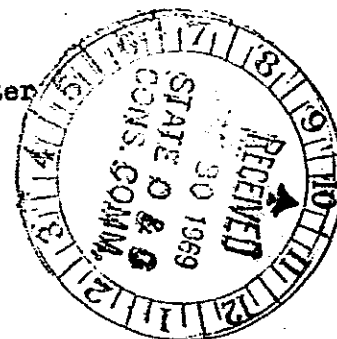
DST #4 (4887-4907) (Rerun)

Tool was opened for 75 minutes with good blow of air which died in 65 minutes. Pulled packers loose and reset tool with good blow air. Tool open on second flow for 135 minutes and then shut in for 60 minutes for final shut-in. Recovery was 1100 feet of drilling mud.

*(Test was declared a mis-run due to plugging.)

DST #5 (4887-4929)

Tool opened for 180 minutes (no initial shut-in) with fair blow air, gas to surface in 42 minutes (too small to measure). Died in 115 minutes. Bypassed after 155 minutes with no blow. Tool closed 30 minutes for final shut-in. Recovery was 3220 feet of fluid - 720





feet gas cut mud plus 2230 feet of gas cut salt water plus
270 feet of gas and water cut mud.

Initial Hydrostatic - 2368 P.S.I.

Initial Flow - 493 to 1464 P.S.I.

Final Shut-In - 1464 P.S.I.

Final Hydrostatic - 2315 P.S.I.

DST #6 (5208-5255)

Tool was opened for 15 minutes pre-flow with weak to
fair blow of air. Tool was closed for 30 minutes initial
shut-in. Tool reopened for 180 minutes with good blow of
air with gas to surface in 17 minutes (too small to measure)
and flowed throughout test. Tool was closed for 60 minutes
final shut-in. Recovery was 1080 feet of fluid -270 feet
free oil plus 90 feet mud cut oil plus 720 feet of oil cut
water.

Initial Hydrostatic - 2611 P.S.I.

Initial Shut-In - 1650 P.S.I.

Initial Flow - 138-183 P.S.I.

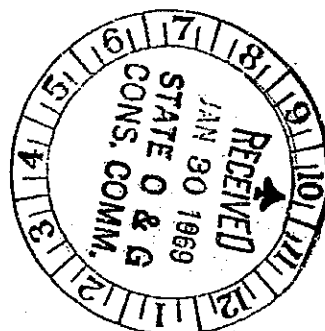
2nd Flow - 183-429 P.S.I.

Final Shut-In - 1650 P.S.I.

Final Hydrostatic - 2519 P.S.I.

Core Analysis:

No cores taken.



WELL SITE CHECK

Contractor Drake Person(s) Contacted George Jones (Drake)
 Spud date _____ Date 1-28-69
 Type Rig _____ Rotary ☒ Cable _____
 Present Operations _____
 Samples _____
 Pipe 5ct 7" @ 5899 Drilling with Air _____ Mud _____
 Water Zones _____ Size Hole _____
 Lost Circ. Zones _____ Size Drill Pipe _____
 Formation Tops _____ Type Bit _____
 Cores, Logs, DST _____ No. Bit _____ Drilling Rate _____
 Formation _____
 Crews _____ Lithology _____

REMARKS, PHOTO, MAP



Picture shows Deane work over rig on location. Swabbing perfs 4899-4909. Tubing press 350# (shot in over night)

SWAB NATURAL

Blk per Hr	% o.i.b	Fluid depth
26	99	2500'
17.6	86	2800'
17.6	80	3800'

25
WELL NAME Consolidated

Permit No. 40
 Confidential ☒ No ☐

Prof 5224-5428 w/ 4 shot per ft.
Dwab 305 Bbls. after
treatment. (Rec 305 Bbls. fluid
consisting of 68 Bbls oil —
rest water.) — in 18 hours.

SUNDY NOTICES AND REPORTS ON WELLS

1. Name of Operator Consolidated Oil & Gas, Inc., 1860 Lincoln St., Denver, Colo. 80203
 2. OIL WELL ☐ GAS WELL ☐ OTHER ☐ (Specify) Waiting on completion
 3. Well Name Navajo #2-41-28-13
 Location C SW SW Section 2, T41N-R28E, 660' FSL & 660' FWL
 Sec. 2 Twp. 41N Rge. 28E County Apache Arizona
 4. Federal, State or Indian Lease Number, or lessor's name if fee lease 14-20-603-226

5. Field or Pool Name East Boundary Butte

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	MONTHLY PROGRESS <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	DIRECTIONAL DRILL <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	PERFORATE CASING <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(OTHER) <u>7" Production Casing</u> <input checked="" type="checkbox"/>	ABANDONMENT <input type="checkbox"/>

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

7. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

	Item	Length (Feet)
Ran 186 jts. 7" casing as follows:	54 jts. 7", 23# J-55, ST&C including guide shoe and float collar one jt. off bottom	1,709.58
	131 jts. 7", 20#, J-55, ST&C	4,164.43
	1 jt. 7", 23#, J-55, ST&C	33.42
	Total	5,907.43

Set pipe at 5,899'. Top of float collar at 5,865'. Ran 16 centralizers from 4,600' to 5,850'. Cemented casing as follows: Preceded cement with 20 Bbls. fresh water containing 10 sx salt and 2 gal. Marflo. Mixed and pumped 355 sx Halliburton light containing 12-1/2 Lbs. gilsonite per sx., followed by 350 sx Class "C" 50/50 pozmix containing 10% salt and 12-1/2 Lbs. gilsonite per sx. Dropped plug. Pumped 220 Bbl. mud. Pump pressure increased from 1,800 to 3,000 psi. Left plug at approximately 5,459', or 406' above float collar. Released pressure, float held OK. (PCB at 9:15 AM, 1/16/69).

Had full mud returns until 180 Bbls. mud were pumped behind plug, then returns decreased to approximately one-half for 40 Bbls. mud.

8. I hereby certify that the foregoing is true and correct.

Signed D. E. Smink
D. E. Smink

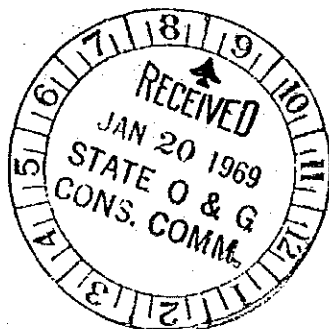
Title Petroleum Engineer Date 1/21/69

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Sundry Notices and Reports On Wells
File Two Copies

Form No. 25

Permit No. Ariz. 481

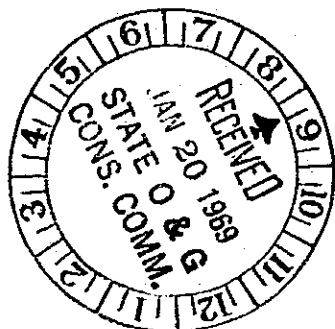
- 12/17/68: Location site finished. Will move in rotary rig Wed. or Thurs. of this week.
- 12/18/68: Will start moving in rotary rig on Thurs.
- 12/19/68: Will be moving in rotary rig today.
- 12/20/68: Moving in and rigging up rotary rig. Will spud tomorrow.
- 12/21/68: Spudded at 10:30 PM 12/20/68. Drilled 322' (shale) in 8 hrs. Dev. $1/4^{\circ}$ at 105'. Present operation: preparing to run 9-5/8" surface casing.
- 12/22/68: Days 2. Depth 422'. Dev. $3/4^{\circ}$ at 320'. MW 8.9, Visc. 32. Bit 1 (8-3/4") in at 322'. Ran 10 jts. 9-5/8" 32#H-40, set at 320'. Cemented w/100 sx reg. 2% CaCl w/ 1/4#/sx Flocele; 100 sx Halliburton lite w/2% CaCl. and 1/4#/sx Flocele. Plug down at 11:30 AM. Cement circulated.
- 12/23/68: Days 3. Depth 1621' (1199' in 17-3/4 hrs.). Dev. $3/4^{\circ}$ at 716', 1° at 1500'. MW 8.9, Visc. 31.
- 12/24/68: Days 5. Depth 2550'. Drilled 829' in 21-3/4 hrs. Bit 1 in hole at 322' (drilled 1178' in 17 hrs.). Bit 2 in hole at 1500' (drilled 807' in 15 hrs.). MW 9.2, Visc. 33, WL 9.8, FC 2/32. Dev. $1-1/4^{\circ}$ at 2300'.
- 12/25/68: Days 6. Depth 3015'. Drilled 465' in 18 hrs. Bit 3 in hole at 2307' (drilled 214' in 12-1/4 hrs.). Bit 4 in hole at 2621' (drilled 348' in 11 hrs.). Bit 5 in hole at 2969' -- drilling at present time. MW 9.3, Visc. 34, WL 8.7, ph 10.5, FC 2/32.
- 12/26/68: Days 7. Depth 3393' (378' in 21-1/2 hrs.). Dev. 1° at 3222'. Bit 5 in at 2969', out at 3222' (253' in 14 hrs.). Bit 6 in at 3222' (171' in 8-1/2 hrs. -- now drilling). MW 9.3, Visc. 33, WL 6.8, FC 2/32, ph 10.5.
- 12/27/68: Days 8. Depth 3704'. Drilled 311' in 17-1/4 hrs. 1° dev. at 3512'. Bit 6 in hole at 3222', out at 3512' (290' in 17-1/4 hrs.); bit 7 in hole at 3512' (182' in 9-1/2 hrs. -- on bottom drilling). MW 9.4, Visc. 40, WL 8.6, ph 10.5. Lost approx. 350 B mud at 3656'.



Driller's Log

481

- 12/28/68: Days 9. Depth 3990' (286' in 20-1/4 hrs.). Dev. 3/4" at 3813'. Bit 7 in at 3512', out at 3813' (301' in 15 hrs.); bit 8 in at 3813' -- now drilling (177' in 15 hrs.). MW 9.0, Visc. 38, WL 8.6, FC 2/32, ph 9.5, 3% LC.
- 12/29/68: Days 10. Depth 4204' (214' in 20-1/4 hrs.). Bit 8 in at 3813', out at 4041' (228' in 19-1/4 hrs.); bit 9 in at 4041' -- now drilling (163' in 15-1/2 hrs.). MW 9.2, Visc. 37, WL 8.0, FC 2/32, ph 11 (8-3/4" hole).
- 12/30/68: Days 11. Depth 4353' (149' in 20-3/4 hrs.). Dev. 1-1/4" at 4230'. Bit 9 in at 4041', out at 4234' (193' in 18-3/4 hrs.); bit 10 in at 4234' -- now drilling (119' in 16-1/2 hrs.) w/button type bit. MW 9.3, Visc. 37, WL 8.0, FC 2/32, ph 11.
- 12/31/68: Days 12. Depth 4530' (177' in 22-1/4 hrs.). Bit 10 in at 4234' -- now drilling (296' in 4-1/2 hrs.). MW 9.3, Visc. 36, WL 7, FC 2/32, ph 11.5.
- 1/1/69: Days 13. Depth 4695' (165' in 23-1/2 hrs.). Bit 10 in at 4234' (466' in 63-1/4 hrs. MW 9.3, Visc. 37, WL 7.0, FC 2/32, ph 11.5. Present operation: drilling.
- 1/2/69: Days 14. Depth 4747' (52' in 6-3/4 hrs.). Dev. 1-1/4" at 4700'. Bit 10 in at 4234' (515' in 68-3/4 hrs.). MW 9.3, Visc. 38, WL 7.2, FC 2/32, ph 11.5, 10% LCM. DST #1: 4649'-4717' (Lower Ismay). Pre-open 15 min. -- good blow, no gas to surface. SI 60 min. Final open 60 min. -- opened w/strong blow, remained strong thruout. FSI 60 min. Recovered 730' highly gas cut and slightly oil cut mud. Pressures: HP 2266/2266 psi, FP 44-132/175-263 psi, SIP 1746/1486 psi. BHT 115°.
- 1/3/69: Depth 4782' (Limestone). Days 15. Drilled 35' in 4-1/2 hrs. MW 9.3, Visc. 48, WL 7.2, FC 2/32, 11.5 ph, Cl = 900 ppm, 10% lost circ. material. DST #2: 4650-4782' -- coming out of hole. Bit 10 in at 4234' (548' in 73 hrs.).



481

- 1/4/69: Days 16. Depth 4884' (Limestone). Drilled 102' in 17-1/2 hrs. Bit 11 in at 4782' -- now drilling. MW 9.1, Visc. 38, WL 5.6, FC 2/32, ph 11, 650 ppm chloride, 3% LCM. DST #2: 4650-4782'. Open 15 min, SI 1 hr., open 1-1/2 hr., SI 1 hr. HP 2261 psi, IF 160-186 psi; ISIP 1596 psi, FF 106-293 psi, FSIP 1331 psi. Recovered 780' highly gas cut mud.
- 1/5/69: Ran DST #3: 4886-4907' (Akah). Opened tool for 15 min., SI 30 min., open 1 hr, SI 1 hr. Tool opened w/good blow on IF, weak blow and dead in 5 min. on FF. IH 2382 psi, FH 2382 psi. IF 45.9-321.0 psi, FF 2061.8-1907.2 psi. ISIP 2061 psi, FSIP 1924.25 psi. Recovered 560' drilling mud. Tool plugged w/mud. Will retest same interval.
- 1/6/69: Depth 4929' (Limestone). Days 18. MW 9.1, Visc. 40, WL 6.8, FC 2/32, ph 11, 8% LCM. Ran DST #4: 4887-4907'. Tool opened w/strong blow, dead in 1 hr. 6 min. By-passed tool and reopened. Opened w/good blow, dead in 1 hr. 11 min. SI 1 hr. Pulled out of hole w/test tool, recovered 930' drilling mud and 150' very slightly gas cut mud. IH 2382 psi/ FH 2382 psi. FP on first test: 459/1764 psi; FP on second test: 711/1696 psi. FSIP 1627 psi. Tool plugged w/mud; conditioned mud and drilled additional 22'. No porosity encountered in additional drilling. Ran DST #5: 4887-4929'. Tool opened w/strong blow. Gas to surface in 42 min. Well dead in 1 hr. 55 min. Obtained gas sample at surface. By-passed tool and reopened w/no blow. Well completely dead. Ran 30 min. SIP. Started out of hole w/DST #5 at 7:45 AM 1/6/69.
- 1/7/69: Days 19. Depth 5050' (lime and shale). Drilled 121' in 17-1/2 hrs. MW 9.3, Visc. 37, WL 8.6, FC 2/32, ph 7, 650 ppm chloride, 8% LCM. Bit 11 in hole at 4782' (268' in 39-1/2 hrs.). Finished out of hole with DST #5. Recovered 720' gas cut mud, 2230' gas cut salt water w/sulphur odor, 270' gas and water cut mud. Total recovery: 3220'. IHP 2367 psi, FP (2 hrs. 30 min.) 493/1464 psi, FSIP 1464 psi, FHP 2314 psi.

- 1/8/69: Days 20. Depth 5195' (Lime and Shale), drilled 145' in 24 hrs. MW 9.3, Visc. 37, WL 6.8, FC 2/32, ph 11.5, 650 ppm salt, 6% LCM. Bit 11 in hole at 4782' (413' in 63-1/4 hrs.).
- 1/9/69: Days 21. Depth 5255'. Ran DST #6: 5208-5255' (Lower Paradox). Opened tool at 1:15 AM 1/9/69, opened w/weak blow. Flowed for 15 min., SI 30 min. Opened tool for final flow at 2:00 AM. Tool opened w/good blow, gas to surface in 13 min. Gas volume too small to measure, still flowing at 3:00 AM (or 1 hr. into final flow).
- 1/10/69: Days 22. Depth 5370' (Limestone), drilled 115' in 18-1/2 hrs. Bit 11 in at 4782' (588' in 89-1/2 hrs. -- still drilling). MW 9.3, Visc. 38, WL 6.8, ph 11.5, FC 2/32, Cl = 1300 ppm, 6% LCM.
DST #6: 5208-55' Preflow 15 min., ISI 30 min., open 180 min., FSI 60 min. Preflow: opened weak, increased to strong at end. Final open: opened strong (gas to surface in 17 min., steady thruout -- too small to measure -- will burn.
- | | I | F |
|-----------------------|--------|--------|
| Pressures: | | |
| HP | 2610 | 2519 |
| (15 min.) Preflow | 137.6 | 183.5 |
| (180 min.) Final flow | 183.5 | 458.7 |
| SIP | 1649.4 | 1649.9 |
| BHT 125° | | |
- Sampler info.: 400 psi chamber press. 1600 cc fluid: .0648 cu. ft. gas, 60 cc oil, 1540 cc. water (56,250 ppm chloride), mud 400 ppm chloride.
Recovery: 270' free oil, 90' mud cut oil, and 720' oil cut water (estimated 50% oil); for a total of 1080'.
- 1/11/69: Days 23. Depth 5,518'. Drilled 148' in 24 Hrs. Present operation: Drilling. MW 9.2, Visc. 37, WL 6.0, FC 2/32, ph 11.5, 700 ppm chloride.
- 1/12/69: Days 24. Depth 5,662' (shale and lime). Drilled 144' in 20 Hrs. Dev. 1° at 5,628'. Bit No. 11. Drilled 846' in 126 Hrs. Bit No. 12 in hole at 5620'.
 MW 9.2, Visc. 37, WL 6.0, FC 2/32, ph 11.5, 700 ppm Chloride.
- 1/13/69: 25 days. Depth: 5815'. Drilled 153' in 24 hrs. Bit #12 in hole at 5628'. Drilled 187' in 31-1/2 hrs. --now drilling. MW 9.3, Visc. 36, WL 5.0, FC 2/32, ph 11.0, Salinity 900 ppm Cl, 1/4% sand.
- 1/14/69: Days 26. 5,900' TD (Limestone). Drilled 85' in 10-3/4 hrs. (Bit #12 in at 5628', out at 5,900'. Drilled 272' in 42-1/4 hrs.) MW 9.2, Visc. 50, WL 5.2, FC 2/32, ph 11.0, 1/4% sand, 800 ppm chloride. Present operation: Logging.
- 1/15/69: Days 27. Depth 5900' (TD). Finished logging at 4:00 PM, 1/14/69. Ran bit. Present operation: circulating and conditioning hole preparatory to running 7" casing.

1/16/69: Days 28, Depth 5,900' (TD). Ran 7" casing to approximately 5,900' (Details to follow). Attempted to break circulation prior to cementing, had no returns. Mixed 9.2 Lb./Gal. mud with 15% LCM. Regained circulation after mixing and pumping approximately 300 Bbls. Now cementing casing. (8:00 AM).

Details of 7" Casing String and Cementing

Ran 186 jts. of 7" casing as follows:

<u>Item</u>	<u>Length - Ft.</u>
54 jts. 7", 23# J-55, ST&C, including guide shoe and float collar one jt. off bottom	1,709.58
131 jts. 7", 20#, J-55, ST&C	4,164.43
1 jt. 7", 23#, J-55, ST&C	33.42
Total	5,907.43

Set pipe at 5,899'. Top of float collar at 5,865'. Ran 16 centralizers from 4,600' to 5,850'.

Cemented casing as follows:

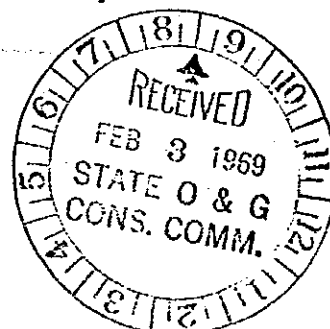
Preceded cement with 20 Bbls. fresh water containing 10 sx. salt and 2 gal. Marflo. Mixed and pumped 355 sx. Halliburton light containing 12-1/2 Lb. gilsonite per sx., followed by 350 sx. Class "C" 50/50 Pozmix containing 10% salt and 12-1/2 Lbs. gilsonite per sx. Dropped plug. Pumped 220 Bbl. mud. Pump pressure increased from 1,800 to 3,000 psi. Left plug at approximately 5,459', or 406' above float collar. Released pressure, float held OK. (POB at 9:15 AM, 1/16/69).

Had full mud returns until 180 Bbls. mud were pumped behind plug, then returns decreased to approximately one-half for 40 Bbls. mud.

1/17/69: WOC for 12 hrs. Hung and cut casing. Ran temperature survey. Found cement top in annulus at 3,010' (below Coconino). Found PBTD at 5,502'. Rigging down and moving out rotary.

1/18/69: Moving out rotary rig.

1/19/69: Moving in completion unit.



1/20/69: Moving in completion unit.

1/21/69: Rigged up completion unit. Will perforate four holes at 2,400' this AM preparatory to cementing Coconino sand.

1/22/69: Perforated four holes at 2,400'. Pumped into holes at 1,600 psi dropping to 1,200 psi at 5 BPM. Pumped 70 Bbls. water. Did not get returns at surface. (Had a blow, then vacuum). Mixed and pumped 70 sx. Halliburton light cement with 12-1/2 Lbs. gilsonite per sx. Dropped plug. Displaced plug with 95 Bbls. water. POB 12:03 PM, 1/21/69. Had blow at surface while cementing. Ran wireline, tagged plug at 2,350'. WOC. Will drill out this AM.

1/23/69: Attempted to run 6-1/4" bit. Bit would not pass gauge joint of 23# casing. (ID = 6.366) Ran 6-1/8" bit, scraper, and 3-1/2" drill collars on 2-7/8" tubing. Drilled cement from 2350 to 2401'. Tested holes at 2400' with 500 psi for 15 min. Tested OK. Ran bit to 5505'. Drilled cement from 5505' to 5555'.

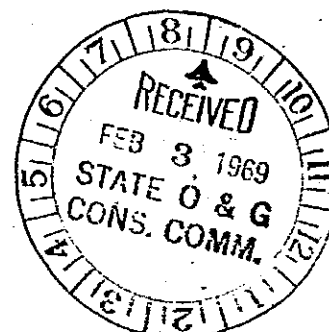
1/24/69: Drilled cement from 5,555 to 5,865' (float collar). Circulated hole clean. Pulled tubing, scraper and bit. Rigged up Schlumberger. Ran cement bond log from 5,865 to 1,500'. Ran GR-CCL log from 5,865 to 3,700'. Now preparing to perforate 5,224-28' with 4" o.d. Hyper-Jet gun.

1/25/69: Perforated 5,224-28' with 4 shots per ft. with a 4" o.d. Hyper-Jet gun. Ran packer on 170 jts. 2-7/8" tubing. Set packer at 5,205'. Swabbed well dry. Shut well in for night.

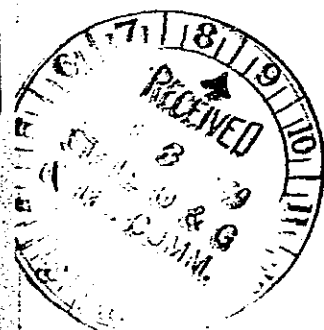
1/26/69: Ran swab to bottom. Recovered one bbl. salt water. Acidized well with 500 gals. 15% HCl. Put acid on spot, well went on vacuum, followed acid with total of 32 bbls. water flush, at no pressure. Ran swab, found fluid level at 350'. Made one swab run from 2,500'. Well began to flow. Flowed back 28 bbls. load water plus acid gas and died.

Bbls. Fluid per Hr.	% Water	Fluid Level
20	50	3,200
30	50	4,000
16	50	4,200
16	60	4,400
15	73	4,400
14	75	4,500
10	65	4,500
121 Total.		

Shut in overnight. Will continue to swab tomorrow.



- 1/27/69: Well swabbed 133 barrels of fluid in 10 hrs. 60-80% water. At end of swab test fluid level 5,000' down from surface. This AM preparing to set retrievable bridge plug and perforate 4,897-4,909'.
- 1/28/69: Yesterday morning SITP 400 psi. Bled pressure down, unseated packer (well kicking, gas in tubing.) Pulled tubing and packer out of hole at 10 AM. From 10 to 11 AM perforated 2 shots per ft. with 4" casing Jet gun. 4,897 - 4,909'. Ran retrievable bridge plug and packer. Bridge plug set at 5,200'. Packer set at 4,870' (RTTS). Started swab test at 2:30 PM. Fluid level 2,200' down. First hr. 29 bbl. of fluid, 100% water. Fluid level 2,500' down. Second hr. 20 bbl. fluid, 90% water, fluid level 2,800' down. Third hr. 21 bbl. fluid, 75% water, fluid level 3,000' down. Total fluid swabbed 70 bbl. in 3 hrs.
- 1/29/69: Yesterday SITP 350 psi. Bled pressure off. Started swab test at 8 AM. FL at beginning of test 2,500' down. First hr. 26 BF, 99% water, FL 2,500' down. Second hr. 17 BF, 86% water, FL 2,800' down. Third hr. 17 BF 80% water, FL 3,800' down. Fourth hr. 14 BF, 40% water, FL 3,800' down. Fifth hr. 12 BF 66% water, FL 4,000' down. Sixth hr. 14 BF, 72% water, FL 4,100' down. Seventh hr. no run - bled water from test tank. Eighth hr. 22 BF, 65% water, FL 4,000' down. Ninth hr. 14 BF, 83% water, FL 4,200' down. Tenth hr. 16 BF, 65% water, FL 4,200' down. Very slight show of gas on the above test. Swabbed 152 bbls. fluid in 9 hrs. from perms. 4,897 - 4,909'. Will release RTTS packer and re-set below perms. Swab and check to see if BP is holding.
- 1/30/69: Checked retrievable bridge plug. Bridge plug leaking. Pulled packer, bridge plug and tubing. Found 2 "O" rings bad in by-pass on plug. Started in hole with Halliburton RTTS packer at 4:30 PM, 1/29/69. One perforated nipple above packer. Will set RTTS packer between perforations. Swab annulus down and swab test perforations at 4,897 - 4,909'.
- 1/31/69: Finished running packer and tubing. Top of RTTS Packer 4,956'. Perforated nipple at 4,922'. Started swabbing 2-7/8" tubing and casing down at 7 AM. At 10:30 AM fluid level down to 3,400'. Swab line broke at derrick crown. Released packer. Pulled 4 jts. of tubing. Recovered end of swab line. Spliced same. Pulled swab from hole. Re-ran 4 jts. tubing and re-set packer. Resumed swabbing at 2:40 PM. Fluid level on first run 3,000' down. Swabbed well down at 5:30 PM. No fluid entry. Present operation: This AM pulling tubing and packer. Will run retrievable bridge plug and Model "R" packer today. Set same. Will acidize with 5,000 gals. of acid tomorrow morning.



NAVAJO #2-41-28-13

Page 8

NAVAJO #2-41-28-13 (COG-50%) Apache Co., Ariz. Elev. 5363' Ungr. Gr.

2/1/69: Ran Baker retrievable bridge plug and Baker Model "R" packer. Bridge plug set at 4,947'. Tested bridge plug at 900 psi. Held OK. Pulled packer up hole and set at 4,842'. Bottom of tailpipe at 4,910'. Shut rig down at 4 PM for night.

2/2/69: 7 PM rigged up Dowell. Loaded hole with 70 Bbls. of water. Spotted mud acid. Acid on perforations at 9 AM. Pressured up on tubing to 100 psi for one minute. Well went on vacuum. Finished flushing acid at 10:44 AM. Treated well with 2,000 gals. mud acid and 3,000 gals. of 15% HCl. Maximum rate 2-3/4 Bbls. per min. Maximum pressure 100 psi. Rigged up to swab at 11:30 AM. Swabbed well as follows:

11:30 - 12:30 PM = FL 2,000' down, recovered 40 Bbls. 100% water.
1:30 PM = FL 2,000' down, recovered 63 Bbls. 100% water.
2:30 PM = FL 2,000' down, recovered 30 Bbls. 100% water.
3:30 PM = FL 1,600' down, recovered 46 Bbls. 100% water.
4:30 PM = FL 1,600' down, recovered 53 Bbls. 100% water.
5:30 PM = FL 1,500' down, recovered 48 Bbls. 100% water.

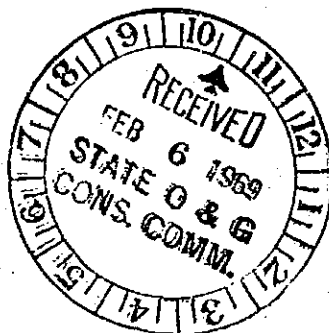
Shut well in.

2/3/69: Rig shut down for Sunday. Will resume operations today.

2/4/69: Yesterday 7:00 AM SITP 50 psi, FL 1500' down. 1st pull w/swab rec. all water. Moved bridge plug up hole to 4820', tested to 900 psi -- held OK. Pulled tubing and packer. Perf'd. casing: 4739-4743', 4/ft. (Hyper jets). Ran 2-1/2" tubing and Baker Model "R" packer. Tailpipe at 4743', packer at 4676'. Ran tubing swab, FL 1500'.

1st hr. 20 BF (all water) SD 4700'
30 min. 2 BF (all water) SD 4700'
30 min. 1/2 BF (all water) SD 4700'
30 min. 1/2 BF (all water) SD 4700'

Will acidize this AM w/1000 gal. 15% HCl (4739-4743').



2/5/69:

Started acid treatment at 8:13 AM w/1000 gal. 15% HCl. Pumped 3 B acid at 1/4 BPM into formation at 800 psi. Formation broke from 800 psi to 0 psi. Finished remainder of acid treatment at 1 BPM at 20 psi. All acid away at 9:05 AM. ISIP 0 psi. Total load to recover -- 54 B. 9:30 AM tagged FL at 1200' down. Made 2 pulls w/swab -- well started to flow. Flowed load topit on 34/64" choke, FTP 200 psi. Shut well in 10 min. to tie into test tank (10 min. SIP 440 psi.

11:00-12:00 Noon	FTP 100 psi	15 BF	40% Wtr.	2% BS	40/64" choke
1:00 PM	FTP 50 psi	12 BF	25% Wtr.	25% BS	" "
2:00 PM	FTP 50 psi	7 BF	38% Wtr.	5% BS	" "
3:00 PM	FTP 50 psi	14 BF	47% Wtr.	5% BS	3/4" "
4:00 PM	FTP 0 psi	2.4BF	28% Wtr.	6% BS	" "

5:00 PM pulled swab: 2 pulls from 4676' -- 13 BF, 28% Wtr. & 6% BS. After each pull of swab well would blow hard flow of gas.

6:00 PM 2 pulls w/swab -- 13 BF, 25% Wtr. & 3% BS.

Total swabbed and flowed: 77 BF over load. Shut well in for night. Ran R.W. on water: 0.11 at 75° = 36,000 total Cl. or 60,000 ppm salt.

2/6/69:

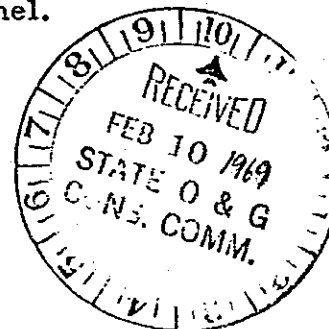
Yesterday AM SITP 500 psi (14-1/2 hrs.). Opened well up on 40/64" choke at 8:00 AM.

	BF	TP (psi)	Wtr.	BS	PULLS (Swabbing from 4700')
8:00-9:00 AM	16	100	12%	None	flowing
10:00	12	50	14%	"	"
11:00	8	0	12%	"	1 -- well died
12:00 Noon	8	--	14%	"	1
1:00 PM	9	--	14%	"	2
2:00	8	--	16%	"	2
3:00	8	--	25%	"	2
4:00	10	--	35%	"	2
5:00	5	--	40%	"	2

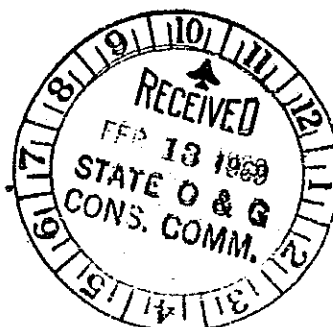
Good strong blow of gas behind each swab pull. Total BF swabbed in 9 hrs: 84 B. Will run tracer survey this AM.

2/7/69:

Put on 22/64" choke from 6:00 PM-7:00 AM -- no fluid. Ran tubing swab, pulled 13 BF, 30% water. Rigged up Schlumberger and Dowell. Ran tracer survey, finished at 12:20 PM. Fluid going out perf's. (4739-43'), up and out at 4695'. Fluid out perf's. (4739-43'), down and out at 4816'. No indication of perf. zone taking fluid. Will squeeze thru perf's. (4739-43') today w/50 sx LWL cmt. (by Halliburton) in effort to close channel.



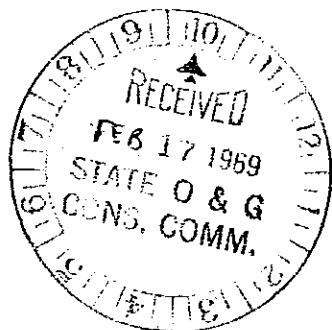
- 2/8/69: On location at 7:30 AM. Unseated packer and lowered 30'. Set packer. Spotted 3 sx sand on top of Baker R.B.P. Pulled 6 jts. tubing. Set packer at 4502' w/tailpipe at 4562'. At 9:07 AM started mixing and pumping cmt. Pumped 50 sx LWL (10 B slurry). Pumping into perf's. before cmt. hit rate 3 BPM at 600 psi. Cmt. hit slowed pumps up, pumping cmt. in at 1000 psi. Cleared tailpipe, stopped pumps (6.5 B slurry into formation). Waited 20 min., press. dissipated to 500 psi. Started pumps, pumped 1/2 B -- press. came up to 1200 psi. Stopped pumps -- waited 48 min., press. down to 375 psi. Started pumps, pumped 1/2 B -- press. came up to 1200 psi. Shut pump down. 13 min. standing press. at 700 psi. Total cmt. into formation: 7.5 B slurry (34 sx), 2.5 B (11.25 sx) left in 7" csg. Top of cmt. approx. 4677', or 62' above perfs. (4739'). Job complete at 10:50 AM. Reversed 32 BF -- circ. some gas, rest clear water (12:15 PM). Unseated packer and pulled tubing. Finished out at 5:30 PM. Present operation: going in hole w/bit, scraper (2 - 3-1/2" D.C.).
- 2/9/69: On location at 7:30 AM. Ran bit, scraper (2 - 3-1/2" D.C.). Ran on 2-1/2" tubing to top of cmt., drlg. good hard firm cmt. 4680-4745' (65' total). Ran bit on to 4800'. Pulled bit, scraper and D.C. Ran Baker retrieving tool. Circulated 15' sand from top of RBP. Latched on to R.B.P., pulled 6 stands tubing. SD for night. Shut rig down for Sunday. Waiting on Model F.A. Baker packer to come in from California.
- 2/10/69: (Sunday) Well SI, rig down. Waiting on Model F.A. Packer to arrive from California. Will start rig up this AM.
- 2/11/69: Ran and set Baker Model "D" production packer w/pump out plug in place and flapper at 5150' KB. Ran and set Baker 7" Model F.A. production packer on wire line at 4840' KB. Perf. 7" casing w/4" gun 4-Hyper jets/foot: 4739-43'. Ran D.R. plug and setting tool, 1 jt. 2-1/2" tubing S.N. (swab stop), 1 jt. 2-1/2" tubing, 1 Model "R" 7" Baker packer. Set D.R. plug in F.A. packer. Pulled up 10', set Model "R", pressured up on F.A. packer to 1000 psi, held OK. Pulled packer up to 4675' and set w/tailpipe at 4746'. Tested annulus to 500 psi, held OK. Started swabbing 2-1/2" tubing at 4:15 PM. At 5:30 PM swabbed down to 4300' FL, SD 4700'. 5:30-6:30 PM rec. 6 BW -- no show of oil, slight show of gas. Have swabbed 14 BF over capacity of tubing on swab down. Shut down for night.



Crew on location at 7:30 AM. 8:00 AM SITP 20 psi. Rigged up and ran swab, FL 1539' down or 3200' fill-up over night (18 B). 1st run w/ swab pulled 200' fluid (salt wtr, no shows). 8:00 to 9:00 AM swabbed total 33 BF (9 pulls). Last three pulls SD 4700' (to SN), FL 4000' w/ no shows of oil or gas. Released packer, set below perfs. 10:30 to 11:30 AM swabbed 33 BF. D.R. plug leaking in Model F.A. packer. Pressured up on D.R. plug -- would leak slowly at 1000 psi. Above this pressure D.R. plug would not leak. Max. press. 2000 psi. Swab tested, plug still leaking. 2:30 PM started out of hole w/D.R. plug and packer, out at 4:30 PM. Found two "O" rings one from fluid equalizer (was never put on when Baker dressed plug). SD for night. (Note: tally tubing and equipment from top of F.A. packer out of hole, tubing tally indicates top of F.A. packer at 4832' KB -- WLM 4840'. Dressed plug over night. Will run same back this AM.

No press. on well. Ran "DR" plug w/setting tool, 2 jts. 2-1/2" tubing and 7" Model "R" pkr. Ran in and set pkr., tailpipe at 4817'. Pressured up on tubing -- plug still on. Picked up to unseat "R" pkr. -- could not. Pulled 20 jts. tubing attempting to get pkr. to go down. Pulled out of hole w/pkr., pkr. dragging each casing collar. Left 1-1/2" slips and 12 springs (springs behind slips) and "DR" plug in hole. Ran sand line thru depth-0-meter. D.R. plug on bottom. Will run Baker Model "R" pkr to pressure test and swab test to see if "DR" plug is holding.

Went in hole w/tailpipe and Model "R" pkr. Tagged DR plug at FA pkr. (4840'). Bumped plug w/8000 # tubing wgt. Picked up 10', set Model "R" pkr. at 4754', pressured up to 2000 psi -- DR plug held. Rigged up and swabbed 35 BF, could not lower FL below 3750' (DR plug leaking). Pulled tubing and Model "R" pkr, ran and set RBP at 4812'. Set pkr. (Model "R") at 4753'. Pressured up on RBP to 1700 psi -- plug held. 5:15 to 6:00 PM swabbed tubing down. SI for night. Will release Baker Model "R" pkr., pull same above perf's. (4739-43'), and swab test.



2/15/69: Crews on location at 7:30 AM, 2/14/69. Checked pressure on well (no press.). Ran swab -- no fluid came in over night. Pulled packer above perf's 4739-43'. Set packer at 4705' w/tailpipe at 4742' -- loaded 7". Checked back side to 200 psi - held OK. Rigged up and swabbed tubing down. Swabbed 24 B -- no fluid or gas entry. Preparing to acidize (11:30 AM). 12:15 PM loaded hole. On spot at 12:58 PM. Washed perf. every 5". At 1:25 PM formation taking acid. Acidized well w/ 3000 gals. 15% HCl at press. from 0 to 300 psi and rates of 0.1 to 1.25 BPM. Flushed w/28 BW. ISI on vacuum at 3:23 PM. Total acid: 72 B, total flush: 28; overall total: 100 B. Opened by-pass. Pumped down annulus. Job complete at 3:45 PM. Started swabbing at 4:00 PM. 4:30 PM - 4th pull rec. acid gas and water; 5:00 PM - rec. total 33 BF, acid water and acid gas, FL 1600' down; 5:00 to 6:00 PM - rec. 40 BF, acid gas and acid water, FL at 2800'. Total of 73 BF swabbed. Shut well in over night.

2/16/69: (7:30 AM) SITP 150 psi, FL at 2200'. 1 hr. swabbing (8:00-9:00 AM) swabbed 33 BF, FL at 2500' (5 gals. oil on top, gassy -- rest is water)

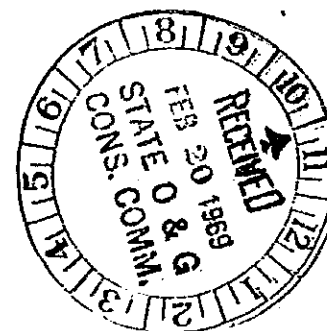
TIME	BF	% Wtr.	SD	REMARKS
9-10	36	95	3000	Gas blow after each swab pull
-11	35	95	3500	Gas blow after each swab pull
-12	28	90	3500	Gas blow after each swab pull
- 1	18	90	3800	Gas blow after each swab pull
- 2	16	90	3900	Gas blow after each swab pull
- 3	15	85	4300	Gas blow after each swab pull
- 4	17	90	4300	Gas blow after each swab pull
- 5	17	80	4400	Gas blow after each swab pull

Total of 215 BF. Will run tracer survey (chloride content of wtr. is 39,000 ppm by Baroid, 55,000 ppm by Schlumberger).

2/17/69: On location at 7:30 AM. 8:00 AM SITP 350 psi. Well flowed 8-1/2 BF and died. Made 1 run w/swab to 2000'. Rec. 12 BF, 40% water. 9:00 AM rigged up Schlumberger, ran base log 4815-4500'. 10:00 AM to 12:00 Noon repairing Schlumberger cable head. 12:00 to 2:00 PM running tracer survey. Fluid out perf's. (4739-43)... Top 4724', Bottom 4812' (R.B.P.). Materials still moving down. Peaks at 4725', 4758-63', 4805'. 2:00 to 2:30 PM rigged Schlumberger down. Total of 100 BW on survey. 2:30 to 6:00 PM: swabbed 100 BF (last pull 40% oil).

2/18/69: Crew on location at 7:30 AM. 8:00 AM SITP 125 psi. 8:00 to 9:00 AM well flowed 16 BF, 60% wtr.

9-10	21 BF	40% wtr.	FL 4300	SD 4700'
10-11	18 "	25% "	"	"
11-12	16 "	25% "	"	"
12- 1	16 "	20% "	"	"
1- 2	13 "	20% "	"	"
2- 3	12 "	20% "	"	"
3- 4	12 "	20% "	"	"
4- 5	12 "	20% "	"	"

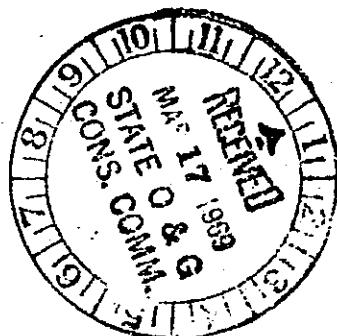


481
Total swabbed: 136 BF in 10 hrs. This AM preparing to pull R.B.P and packer.

- 2/19/69: Crew on location at 7:30 AM. SITP 225 psi. Opened well, flowed 12 BF and died. Unseated packer, dropped down -- caught R.B.P. and pulled packer and R.B.P. from hole. Went in hole w/overshot and tubing. Caught D.R. plug, pulled same from hole (all slips that were lost from Model "R" packer came out w/D.R. plug). Shut down for night.
- 2/20/69: Shut rig down yesterday due to illness of crew. Plan to start rig up today.
- 2/21/69: Started up at 7:30 AM. Laid down 2-1/2" tubing. Moved pulling unit to #26-36 and pulled rods (will pull tubing today). This 2-3/8" tubing to be used for pumping string on Navajo #2-13. Will move pulling unit back to #2-13.
- 2/22/69: Moving pulling unit back in. Will start running tubing this AM.
- 2/23/69: Injection String: Ran 1 jt. 2-3/8" P.C. tubing w/slim hole collar (2-7/8" o.d.) open-ended, 1 Baker Model "H" anchor seal assembly, 1 jt. 2-3/8" P.C. tubing, 1 Baker Model "D" parallel anchor, 152 jts. 2-3/8" P.C. tubing w/ turned down collars, 8' - 4' - 6' pup jts., 2 jts. 2-3/8" tubing landed 10-1/2' below KB at 4840.2' w/6000 # tension. Top of anchor at 4807'. Pulled 50,000 # on seal assembly to check.
Pumping String: Ran Baker latch "J" sub, 1 jt. 2-3/8" tubing. 31.17' M.A. 4.17' perf. nipple (top 4772') 1' SN. 154 jts. 2-3/8" E.U.E. w/standard collars. 1-8.10' sub, 1-4.10' sub, 1-6.05' sub. 1 jt. 2-3/8". Tubing landed at 4807'. Picked up w/22,000 # over wgt. of string (tension). Finished at 8:00 PM, 2/22/69. Will run pump (1-1/2") and 3/4" and 7/8" slim box rods today.
- 2/24/69: Crew on location at 9:30 AM. Ran pump and rods as follows:
- 1 (1" x 10') gas anchor
 - 1 RWBC volume producer pump (fluid pack)
 - 1 (2" x 1-1/2" x 16') CPN barrel chrome plunger; 1-1/2" x 5/8" valve B.H. 3 cups
 - 100(3/4" x 25') rods (2500')
 - 29 (3/4" x 30') rods (870')
 - 54 (7/8" x 25') rods (1350' -- slim hole boxes)
 - 1 (10' x 7/8") pony rod
 - 1 (8' x 7/8") pony rod
 - 1 (1-1/4" x 16') polish rod
- Total of 4554', plus 16' pump = 4574'. SN at 4574'. Finished at 2:00 PM, 2/23/69. Present operation: moving out pulling unit and hooking up production equipment.
- 2/25/69: Hooking up production equipment.
- 2/26/69: Hooking up production equipment. 2/27/69: Hooking up production equipment.
- 2/28/69: Setting pumping unit. Should have well on production at approx. 12:00 Noon, 2/28/69.



- 3/1/69: Well pumped up and ran out of fuel. All surface and treating equipment filled. Now placing well on test.
- 3/2/69: Put unit on 64" stroke. Pumping 16- 64" spm. Well pumped salt water from 12:00 Noon to 5:00 PM, 3/1/69. Unit down this AM.
- 3/3/69: On 20 hr. test, well pumped 240 BW-- no oil.
- 3/4/69: Well produced 170 BW in 24 hrs. No oil.
- 3/5/69: Well produced 270 BW, no oil (24 hrs.). Preparing to obtain sonolog shot and run dye tracer.
- 3/6/69: Well produced 288 BW, no oil (24 hrs.). Shot pumping fluid level at 3410'. (Earlier swab tests of Akah perforations had swabbed 50 BWPH w/fluid level at 1600'). Preparing dye tracer.
- 3/7/69: 240 BW, no oil (24 hrs.)
- 3/8/69: Well produced 210 BW, no oil (24 hrs.).
- 3/9/69: Well produced 259 BW, no oil (24 hrs.).
- 3/10/69: 264 BW, no oil (24 hrs.)
- 3/11/69: Ran flourocene dye tracer survey. Mixed 5# dye in 5 gal. SW. Displaced mixture to bottom of injection string w/ 19 BSW from treater in 1 hr. & 45 min. Shut injection string in. Had dye in produced water at surface in 30 min. Shut well in. Waiting on completion unit.
- 3/11/69: Well shut in. Waiting on completion unit.
- 3/12/69: Well shut in. Waiting on completion unit.
- 3/13/69: Waiting on completion unit.
- 3/14/69: Moved in and rigged up completion unit. Attempted to unseat pump. Pump would not pull. Stripped out short string of 2-3/8" tubing, rods, and pump. Picked up on long string of 2-3/8" tubing. Long string was free (i.e., not latched into Baker "FA" packer). Now pulling long string.

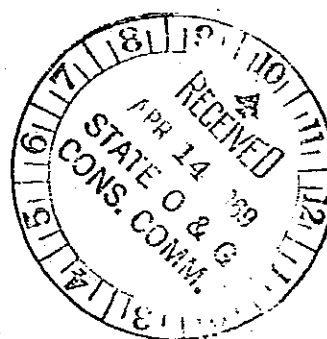


481

- 3/15/69: Pulled out of hole w/ tubing. Tubing has pulled out of collar 5 jts. above "FA" packer. Went in hole w/ overshot to catch tubing collar. Caught top of fish -- had slight drag, then pipe was free. Pulled out of hole, did not have any of fish. Re-dressed overshot and started back in hole. SD for night.
- 3/16/69: Finished in hole. Caught top of fish. Rotated out of latch in "FA" packer. Pulled out of hole w/ tubing, anchor and "FA" seal assembly. Tubing collar on top of fish was split. Shut down for night.
- 3/17/69: Went in hole w/ Model "FA" seal assembly, Model "R" packer, and tubing tester. Finished in hole to top of "FA" packer, closed tubing tester and pressured up to 500 psi on tubing. Tubing parted -- pulled out of hole w/ 1400' of tubing. Top of fish has collar looking up. Will run overshot this AM.
- 3/18/69: Went in hole with overshot. Caught fish at 1400'. Pulled out of hole with tubing, Model "R" packer and "FA" seal assembly. Redressed "FA" seal assembly and went back in hole. Landed "FA" packer and set Model "R" packer. Pressured up on tubing to 800 psi, held OK. 4:30 PM: swabbed well to 4740'. Waited 30 min., then ran swab w/ FL at 4740'. No fluid entry. Unseated packer, pulled 40 jts. tubing. Shut down for night.
- 3/19/69: Finished pulling tubing, packer and F.A. plug. Ran approx. 3000' tubing. Breaking old collars off, replacing w/new ones. SD for night.
- 3/20/69: Finished in hole w/seal assembly and tubing. Could not get seal assembly to latch in. Pulled same out of hole. Assembly appeared to have lacked approx. 9" going into Model F.A. packer. Will re-dress assembly, run back in hole w/ Baker tubing anchor catcher above (will leave latch off of assembly).
- 3/21/69: Finished in hole w/injection string and Baker "Lock-Set" packer. Set packer at 4834'. Ran production string and landed anchor at 4803'. Present operation: going in hole w/pump and rods.



- 3/22/69: Finished in hole w/pump and rods. Kicked off pumping unit at 10:30 AM. Well produced 222 BSW in 21 hrs. No gas or oil.
- 3/23/69: Well produced 264 BSW (24 hrs.). Trace of oil and gas.
- 3/24/69: 100 BW, 36 BO -- good gas. 24 hr. gauge.
- 3/25/69: 17 BO and 25 BW in 24 hrs. -- good gas from casing. Will run Echometer to determine pumping fluid level.
- 3/26/69: Well produced 22 BO and 18 BW in 24 hrs. Ran Echometer survey. Found pumping fluid level at 4620'. Pump set at 4768'. Perforations at 4739-43'.
- 3/27/69: Produced 17 BO and 12 BW in 24 hrs. Preparing to perform Hyflo treatment.
- 3/28/69: No gauge this AM. Preparing to perform Hyflo treatment.
- 3/29/69: Produced 19 BO + 10 BW in 24 hrs. (In 24 hr. period ending 7:00 AM, 3/28/69, well produced 17 BO + 2 BW). Preparing to perform Hyflo treatment.
- 3/30/69: 18 BO + 10 BW in 24 hrs. Preparing to perform Hyflo treatment (this AM).
- 3/31/69: Treated well w/50 gals. Hyflo in 50 B lease crude. Formation on vacuum during treatment. Shut well in over night. 139 BLO to recover.
- 4/1/69: 103 BO + 10 BW in 24 hrs. 36 BLO to recover.
- 4/2/69: 25 BO and 2 BW in 24 hrs. 11 BLO to recover.
- 4/3/69: 22 BO + 5 BW in 24 hrs. -- good gas.
- 4/4/69: 11 BO + 4 BW in 24 hrs..
- 4/5/69: 14 BO + 7 BW in 24 hrs.
- 4/6/69: 14 BO + 2 BW in 24 hrs. Good gas.
- 4/7/69: 17 BO + 4 BW in 24 hrs. Good gas.
- 4/8/69: 8 BO + 4 BW in 24 hrs. Good volume of gas.
- 4/9/69: 14 BO + 5 BW in 24 hrs. Preparing to acidize perf's.: 4739-43'.
- 4/10/69: Preparing to acidize well. No gauge this AM.
- 4/11/69: 11 BO + 4 BSW in 24 hrs.



4/12/69: Moved in completion unit. Pulled rods and pump. Will acidize perf's. 4739-43' this AM.

4/13/69: Rigged up Halliburton. Acidized well with 5000 gal. 10% MSA acid. Heated acid to 125° F to prevent tubing contraction. Well on strong vacuum thruout treatment. Ran swab. Found FL at 3200'. 69 BLO to recover. Swabbed well as follows:

TIME	FL	SD	BF	BO	BAW	PULLS
11:30-12:30	4300	4760	18.8	13.8	5.0	4
1:30	4300	"	13.6	11.9	2.6	4
2:30	4500	"	3.6	2.8	0.8	2
3:30	4500	"	5.8	2.8	3.0	2
4:30	4400	"	20.8	8.3	12.5	3
5:30	4400	"	7.2	0.0	7.2	3
			69.8	38.7	31.1	

4/14/69: 8:00 AM SITP = 50 psi, CP = 250 psi, FL at 4300'. From 8:00 AM - 11:00 AM swabbed 33 BF (22 BO & 11 BW), 9 pulls w/swab. SD 4370', FL up and down hole. Well trying to flow. Will run rods and pump and rig unit down. Put on pump at 3:00 PM: (16 hrs.) 30 BO & 66 BW-20.7 B new oil, lack 12 BAW. Appears gas has doubled in volume.

4/15/69: 17 BO + 8 BW in 24 hrs. (See notation below)*

4/16/69: No report.

4/17/69: 27 BO + 4 BW in 24 hrs.

4/18/69: Produced 22 BO + 2 BW in 24 hrs.

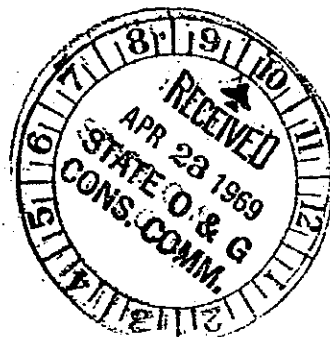
*(4/15/69): Pump and rods run as follows -- 1" x 10' G.A, RWBC volume pump 2" x 1-1/2" x 16', 100 3/4" x 25' rods, 28 3/4" x 30' rods, 55 7/8" x 25' rods, 1 7/8" x 10' pony rod, 1 7/8" x 8' pony rod, 1 7/8" x 4' pony rod, 1 1-1/4" x 16' polish rod; total of 4786'. Perf'd. casing: 4739-4743'.).

4/19/69: No report.

4/20/69: No report.

4/21/69: 8 BO and 2 BW in 24 hrs. Pressure tested pump to 700 psi.

4/22/69: 12 BO and 4 BW in 24 hrs.

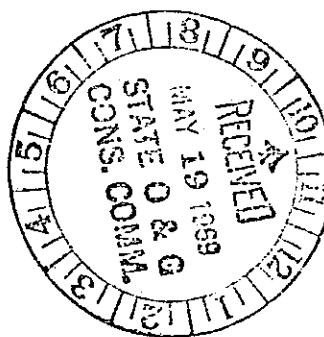


481

4/23/69: 11 BO + 3 BW in 24 hrs.
4/24/69: 8 BO + 4 BW in 24 hrs.
4/25/69: 6 BO + 4 BW in 24 hrs.
4/26/69: 8 BO + 4 BW in 24 hrs. Shot FL at 3:00 PM, 4/25/69 -- 154 jts. down or 90' above seating nipple.
4/27/69: Well shut down. Moving engine (#135 went to Navajo #3-11).
4/28/69: Will set #195 engine today. Will start well to pumping today.
4/29/69: 9 BO + 6 BW in 15 hrs.
4/30/69: 22 BO + 1 BSW in 24 hrs.
5/1/69: 11 BO + 2 BW in 24 hrs.
5/2/69: 6 BO + 3 BW in 24 hrs.

5/3/69: 8 BO + 2 BW in 24 hrs. Will shoot fluid level.
5/4/69: 8 BO + 2 BW in 24 hrs. Shot fluid level at 152 jts (90' above PSN).

5/5/69: 6 BO + 3 BW in 24 hrs.
5/6/69: No report.
5/7/69: 8 BO + 2 BW in 24 hrs. Pump pounding fluid.
5/8/69: 11 BO + 1 BW in 24 hrs.
5/9/69: 10 BO + 3 BW in 24 hrs.
5/10/69: 8 BO + 2 BW in 24 hrs.
5/11/69: 9 BO + 3 BW in 24 hrs.
5/12/69: 5 BO + 1 BW in 24 hrs.
5/13/69: 9 BO + 3 BW in 24 hrs.
5/14/69: No report.
5/15/69: 5 BO + 2 BW in 24 hrs.
5/16/69: No report. Report will be called in every other day.



481

NAVAJO #2-41-28-13

Page 19

5/17/69 & 5/18/69: No report.

5/19/69: 5 BO + 2 BSW in 24 hrs.

5/20/69: 5 BO + 2 BSW in 24 hrs.

5/21/69: No report. Gauges called in every other day. Will move completion unit on well on 5/25/69, in preparation for test of Lower Paradox.

5/22/69: 16 BO + 1 BW in 24 hrs.

5/23/69: No report.

5/24/69: No report.

5/25/69: No report.

5/26/69: No report.

5/27/69: No report.

5/28/69: Produced 6 BO and 2 BW in 24 hrs.

5/29/69: No report.

5/30/69 - 6/1/69: No report.

6/2/69: 6 BO + 3 BW in 24 hrs.

6/3/69: 5 BO + 2 BW in 24 hrs.

6/4/69: 5 BO + 3 BW in 24 hrs.

6/5/69: 3 BO + 2 BW in 24 hrs.

6/6/69: No report.

6/7/69-6/11/69: No report.

6/12/69: No report.

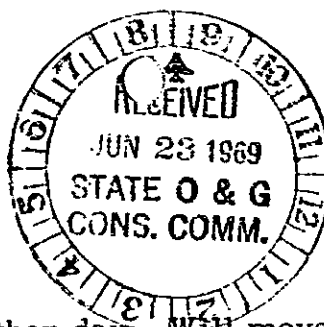
6/13/69: 3 BO + 4 BW in 24 hrs.

6/14/69: 5 BO + 2 BW in 24 hrs.

6/15/69 - 6/18/69: No report.

6/19/69: No report.

6/20/69: 5 BO + 3 BW in 24 hrs.



6/21/69 - 6/29/69: No report.

6/30/69: Will move in service rig today. Will re-arrange equipment in well to test lower zone.

7/1/69: Moved in and rigged up completion rig. Pulled rods and pump and short string of tubing.

7/2/69: Pulled out of hole w/long string and packer. Started back in hole w/magnet to clean off on top of knock-out plug in Baker "D" packer.

7/3/69: Production string landed at 5156' KB in Baker "D" packer w/10' seal assembly. Seating nipple at 5145', injection string at 4839' KB -- landed in "FA" w/6000# wgt. Rigged up to run rods, and shut down for night. Will finish in hole w/rods and pump and put on production today.

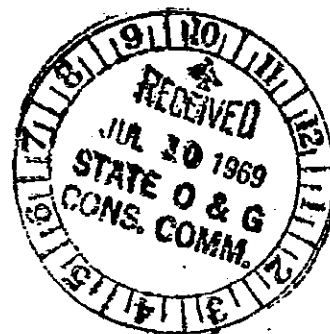
7/4/69: 4 BO + (?) BSW in 4 hrs.

7/5/69: 14 BO + (?) BSW in 20 hrs.

7/6/69: 12 BO + 96 BSW in 24 hrs.

7/7/69: 16 BO + 83 BSW in 24 hrs. (14 spm x 64" stroke).

7/8/69: 12 BO + 98 BW in 24 hrs., 14/64" choke. Final Report. Transferred to Production Report.



481

MEMO: FILE
FROM: JOHN BANNISTER

1-14-69

RE: Consolidated Oil & Gas #1 Navajo
T41N, R28E, G & SRM
Sec 2: SW/4 SW/4
Apache County, Arizona
Permit #481

David Smink telephoned.

Top given:

Shinarump 1670
Coconino 1950 carrying salt water
Hermosa 3906
Ismay 4613
Desert Creek 4726
Akah 4888
Molas 5512
Leadville 5670
Ouray 5860
TD 5900 in Ouray

Plan to run pipe to TD. Will cement through Hermosa and test Ismay, Desert Creek and Akah for possible multiple completion.

Will set cement through Coconino.

At Ouray between 5860 and 5870 saturated 60 to 75% water.

Drill stem tests have been run and will be reported immediately.

25/481

SUNDY NOTICES AND REPORTS ON WELLS

1. Name of Operator Consolidated Oil & Gas, Inc., 1860 Lincoln St., Denver, Colo., 80203

2. OIL WELL ☐ GAS WELL ☐ OTHER ☒ (Specify) Drilling well

3. Well Name Navajo No. 2-41-28-13

Location C SW SW Section 2, T41N-R28E, 660' FSL & 660' FWL

Sec. 2 Twp. 41N Rge. 28E County Apache Arizona.

4. Federal, State or Indian Lease Number, or lessor's name if fee lease Lease No. 14-20-603-226

Navajo #7

5. Field or Pool Name East Boundary Butte

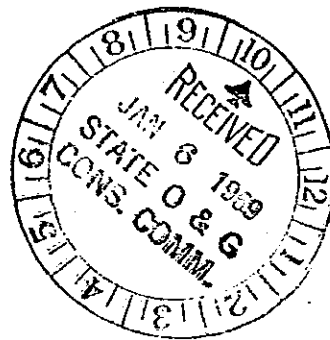
6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:			SUBSEQUENT REPORT OF:		
TEST WATER SHUT-OFF	<input type="checkbox"/>	PULL OR ALTER CASING	<input type="checkbox"/>	MONTHLY PROGRESS	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	DIRECTIONAL DRILL	<input type="checkbox"/>	REPAIRING WELL	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	PERFORATE CASING	<input type="checkbox"/>	ALTERING CASING	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	CHANGE PLANS	<input type="checkbox"/>	ABANDONMENT	<input type="checkbox"/>
(OTHER)	<input type="checkbox"/>	(OTHER)	<input checked="" type="checkbox"/> <u>Set surface casing</u>		<input checked="" type="checkbox"/>

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

7. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

On December 21, 1968, ran 10 joints 9-5/8", 32#/ft., H-40 casing and set at 320'; cemented with 200 sacks cement containing 2% CaCl₂. Cement circulated.



8. I hereby certify that the foregoing is true and correct.

Signed D. E. Smink Title Petr. Engr. Date 1/3/69

Permit No. 481

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Sundry Notices and Reports On Wells
File Two Copies
Form No. 25

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on
reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. 14-20-603-226
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME Navajo #7
2. NAME OF OPERATOR Consolidated Oil & Gas, Inc.		7. UNIT AGREEMENT NAME -
3. ADDRESS OF OPERATOR 1860 Lincoln St., Denver, Colorado 80203		8. FARM OR LEASE NAME East Boundary Butte
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface C SW SW Section 2, T41N-R28E 660' FSL & 660' FWL, Section 2 At proposed prod. zone		9. WELL NO. 2-41-28-13
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 25 miles from Shiprock, N. M. or Montezuma Creek, Utah		10. FIELD AND POOL, OR WILDCAT East Boundary Butte
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 660'	16. NO. OF ACRES IN LEASE 2352	11. SEC. T., R., M., OR BLK. AND SURVEY OR AREA Section 2, T41N-R28E
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 5000'	19. PROPOSED DEPTH 6500'	12. COUNTY OR PARISH Apache
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 5363' Ungr. ground		13. STATE Arizona
22. APPROX. DATE WORK WILL START* December 21, 1968		

23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	32#	300'	To surface
7-7/8"	5-1/2"	15.5#	6500'	250 sacks

It is proposed to drill to an estimated total depth of 6500' to test the Mississippian Leadville and the McCracken sand. The Mississippian will be found at an estimated depth of 5615'. The McCracken will be found at an estimated depth of 6425'. A string of 8-5/8" 32# surface casing will be set at approximately 300' and will be cemented to surface. 5-1/2" 15.5# casing will be set at approximately 6500' and cemented with 250 sacks. A gel chemical mud will be used to drill to an estimated depth of 6500'.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED James D. Lutz TITLE Drilling Superintendent DATE 12/11/68

(This space for Federal or State office use)

PERMIT NO. 481 APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER

APPLICATION TO DRILL ☒RE-ENTER OLD WELL ☐Consolidated Oil & Gas, Inc.
NAME OF COMPANY OR OPERATOR1860 Lincoln Street Denver Colorado 80203
Address City StateCactus Drilling Company
Drilling ContractorFarmington, New Mexico
Address

DESCRIPTION OF WELL AND LEASE

Federal, State or Indian Lease Number, or if fee lease, name of lessor	Well number	Elevation (ground)
Navajo #7 - Lse. # 14-20-603-226	2-41-28-16 ¹³	5363' Ungr. gr.
Nearest distance from proposed location to property or lease line:	Distance from proposed location to nearest drilling, completed or applied-for well on the same lease:	
660 feet	5000 feet	
Number of acres in lease:	Number of wells on lease, including this well, completed in or drilling to this reservoir:	
2352	3	

If lease, purchased with one or more wells drilled, from whom purchased:

Name

Address

Shell Oil Company

Los Angeles, California

Well location (give footage from section lines)

Section--township--range or block and survey

Dedication (Comply with Rule 105)

660' FSL & 660' FWL

Section 2, T41N-R28E

80 acres

Field and reservoir (if wildcat, so state)

County

East Boundary Butte

Apache

Distance, in miles, and direction from nearest town or post office

25 miles from Shiprock, N. M. or Montezuma Creek, Utah

Proposed depth:

Rotary or cable tools

Approx. date work will start

6500'

Rotary

December 21, 1968

Bond Status Performance

Organization Report

Filing Fee of \$25.00

Amount #31380-13-99-68

On file XX

Or attached

Attached XX Check #29511

Remarks \$25,000

It is proposed to drill to an estimated total depth of 6500' to test the Mississippian Leadville and the McCracken sand. The Mississippian will be found at an estimated depth of 5615'. The McCracken will be found at an estimated depth 6425'. A string of 8-5/8" 32# surface casing will be set at approximately 300' and will be cemented to surface. 5-1/2" 15.5# casing will be set at approximately 6500' and cemented with 250 sx. A gel chemical mud will be used to drill to estimated T. D.

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Drilling Superintendent of theConsolidated Oil & Gas, Inc. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Signature

Vernon J. Lowe

Date

December 9, 1968

Permit Number:

Approval Date: 12/13/68

Approved By: John B. Bannister

Notice: Before sending in this form be sure that you have given all information requested. Much unnecessary correspondence will thus be avoided.

Form No. 3

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Application to Drill or Re-enter
File Two Copies

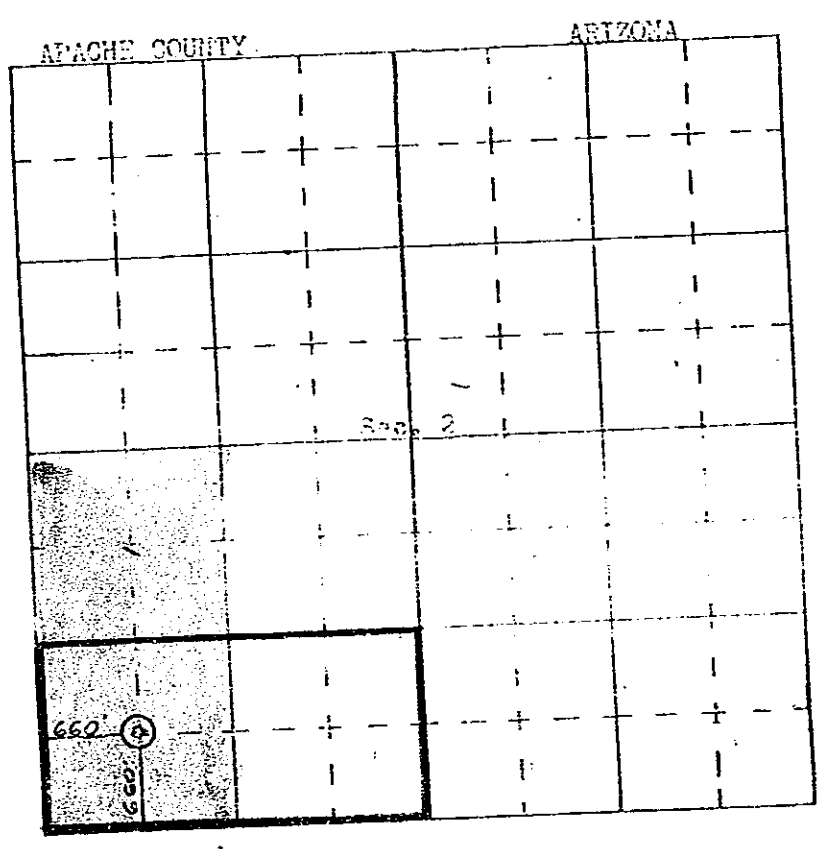
1. Operator shall outline the dedicated acreage for both oil and gas wells on the plat.
2. A registered professional engineer or land surveyor registered in the State of Arizona or approved by the Commission shall show on the plat the location of the well and certify this information in the space provided. See attached certified plat
3. All distances shown on the plat must be from the outer boundaries of the Section.
4. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES ☒ NO ☐
5. If the answer to question four is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES ☐ NO ☐ If answer is "yes," Type of Consolidation _____
6. If the answer to question four is "no," list all the owners and their respective interests below:

Owner Consolidated Oil & Gas, Inc.	Land Description C SW SW Section 2, T41N-R28E																				
<div style="display: flex; justify-content: space-between;"> <div style="width: 55%;"> <table border="1" style="width: 100%; height: 200px; border-collapse: collapse;"> <tr><td colspan="4" style="text-align: center; vertical-align: middle;">SEE ATTACHED PLAT</td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> </table> </div> <div style="width: 40%; padding-left: 10px;"> <p style="text-align: center;">CERTIFICATION</p> <p>I hereby certify that the information above is true and complete to the best of my knowledge and belief.</p> <p>Name <u><i>Timothy J. Gault</i></u></p> <p>Position <u>Drilling Superintendent</u></p> <p>Company <u>Consolidated Oil & Gas, Inc.</u></p> <p>Date <u>December 9, 1968</u></p> <p>I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.</p> <p>Date Surveyed _____</p> <p>Registered Professional Engineer and/or Land Surveyor _____</p> <p>Certificate No. _____</p> </div> </div>		SEE ATTACHED PLAT																			
SEE ATTACHED PLAT																					

PROPOSED CASING PROGRAM

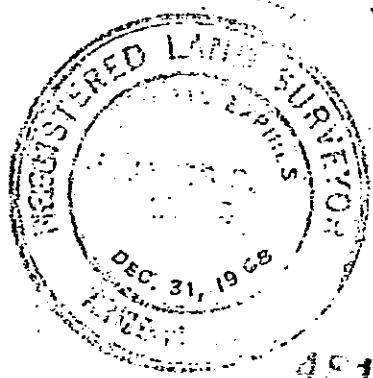
Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
SEE FRONT SIDE OF FORM						

COMPANY CONSOLIDATED OIL AND GAS, INC.
LEASE NAVAJO WELL NO. 2-41-28-16
SEC. 2 T. 41 NORTH R. 22 EAST
LOCATION 660 feet from the South line and
660 feet from the West line
ELEVATION 5363.0



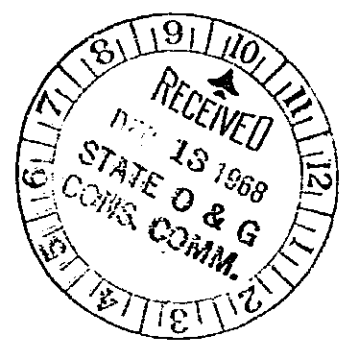
SCALE—1 INCHES EQUALS 1 MILE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM
FIELD NOTE OF ACTUAL SURVEYS MADE BY ME UNDER MY SUPER-
VISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE
BEST OF MY KNOWLEDGE AND BELIEF.



SEAL: James P. Leese
Registered Land Surveyor.
JAMES P. LEESE
ARIZ. REG. NO. 1849

SURVEYED 2 November, 1963





PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: **CONSOLIDATED OIL & GAS, INCORPORATED**
(OPERATOR)

to drill a well to be known as

CONSOLIDATED OIL & GAS ²⁻¹³ NAVAJO
(WELL NAME)

located **660' FSL - 660' FVL**

Section **2** Township **41N** Range **28E**, **APACHE** County, Arizona.

The **W/2 SW/4** of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled
in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this **13** day of **DECEMBER**, 19 **68**.

OIL AND GAS CONSERVATION COMMISSION

By

John W. Barnister
EXECUTIVE SECRETARY

PERMIT N^o 481

RECEIPT NO. 9563

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

API NO. 02-001-20090
SAMPLES ARE REQUIRED



Consolidated Oil & Gas, Inc.



Consolidated Oil & Gas, Inc.

LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

NOTICE OF HEARING

CASE NO. 35

March 19, 1969

APPLICATION OF CONSOLIDATED OIL & GAS, INC. FOR
AUTHORITY TO PRODUCE PETROLEUM FROM THE
DESERT CREEK ZONE AND TO DISPOSE OF SALT WATER
PRODUCED FROM THE DESERT CREEK ZONE BY INJECTION
INTO THE AKAH ZONE IN THE #1 NAVAJO WELL LOCATED
660 FEET FROM THE SOUTH AND 660 FEET FROM THE
WEST LINE OF SECTION 2, TOWNSHIP 41 NORTH, RANGE
28 EAST, APACHE COUNTY, ARIZONA, THROUGH PER-
FORATIONS IN THE AKAH ZONE.

GEOLOGICAL REPORT

The Consolidated Navajo #2-41-28-13 was spudded on an east-west trending anticlinal structure. This structure known locally as East Boundary Butte lies along the southwestern flank of the Paradox Basin. Previous drilling in the area which delineated the structure was conducted by Shell and Humble. These original tests resulted in sporadic production of gas and/or oil from zones within the Pennsylvanian rocks. The primary intent of drilling the Navajo #2-41-28-13 was to test these zones for production and resulted in positive tests sufficient to warrant running pipe for completion attempts.

Surface rocks of the area are Jurassic in age and belong to the San Rafael group of this era. These beds consist of variegated clastics generally red to buff in color and in the immediate area of the well are primarily banded shales and sandstones. A normal sequence of sediments was penetrated to the total depth (5900') which was the Ouray member of the Upper Devonian era. (For sample descriptions see attached log.)

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO POROUS FORMATION				
Operator Consolidated Oil & Gas, Inc.		Address 1860 Lincoln Street, Denver, Colorado		
Federal, State or Indian Lease Number, or lessor's name if fee lease 14-20-603-226 (Navajo #7)	Well No. 2-41-28-13	Field East Boundary Butte	County Apache	
Location C SW SW Section 2; 660' FSL & 660' FWL		SEC-TWP-RGE or Block & Survey Section 2, T41N-R28E		
CASING AND TUBING DATA				
Name of string	Size	Length	Cement Data	
Surface Casing	9-5/8" 32#	Set at 320'	200 sacks -- cement circulated to surface	
Intermediate	7" 20# & 23#	Set at 5899'	705 sacks displaced through casing shoe and 70 sacks displaced thru perfs. at 2400'	
Long String				
		Name, Model and Depth of Tubing Packer		
Tubing (two strings)	2-3/8" 4.7#	Set at 4840' & 4750'	Baker Model "FA" at 4840' (see attached sketch)	
Name of Top and Bottom of Injection Zone Hermosa: Top 4897', bottom 4909'				
Is Injection through Tubing, Casing or Annulus? Tubing		Perforations or Open Hole? 1 Perforations	Is this a new well Drilled for Disposal? New well -- dual completion	
List all Cement Squeeze Operations, Giving Interval and Number Sacks Cement Squeezed perforations 4739-43' with 50 sacks cement				
Is Injection Zone Productive of Oil or Gas in This Field? yes (approx. one mile NW)		Depth of Deepest Fresh Water Zone 2355'	Depth of Shallowest Productive Zone 4726'	
Anticipated Daily Injection Volume (bbls.) 50		Minimum 500	Open or Closed System? closed	
Is Injection to be by Gravity or Pressure? Gravity		Approx. Pressure (Psi) 0	Source of Water to be Injected Perfs. 4739-43'	
Are there any other Salt Water Disposal Wells using this same Zone in this Field?		Yes or No No	If so name one such well below --	
Name of Operator of Disposal Well in same zone --		Lease Name --	Well No. --	
Is this well so cased and completed that water can enter no other formation than the above set out injection zone?		Yes or No yes	Have notices of this application been mailed or given to all operators within 1/2 mile of this injection well? (Discussed with Humble -- see attached waiver)	
			yes	
List names and addresses of all operators within one-half (1/2) mile of this injection well: Humble Oil & Refining Company, 1860 Lincoln Street, Denver, Colorado 80203				
<p>CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Petroleum Engineer of the Consolidated Oil & Gas, Inc. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.</p>				
<p>INSTRUCTIONS:</p> <p>1. Attach a complete full-scale electrical log of this well, if available. Indicate on electrical log, or by other evidence, the base of fresh water zones in this field.</p> <p>2. Attach waivers from all operators within one-half (1/2) mile of injection well, or copies of letters notifying such operators of this application. Also attach waiver from surface owners of land on which the disposal well is located, or copy of letter from operator making this application notifying such surface owners of this application and requesting waivers.</p> <p>3. Should all necessary waivers not accompany application, the State of Arizona Oil & Gas Conservation Commission shall hold such application for a period of ten (10) days from date of receipt. If, after said ten (10) day period, no protest or request for a hearing is received, the application will then be processed.</p>		<p>Signature <u>D. E. Smink</u></p> <p>Petroleum Engineer</p> <p>Date <u>February 21, 1969</u></p>		
<p>Date approved _____</p> <p style="text-align: center;">STATE OF ARIZONA</p> <p style="text-align: center;">OIL & GAS CONSERVATION COMMISSION</p> <p>By _____</p>		<p style="text-align: center;">STATE OF ARIZONA</p> <p style="text-align: center;">OIL & GAS CONSERVATION COMMISSION</p> <p style="text-align: center;">Application To Dispose of Salt Water By Injection Into a Porous Formation</p> <p style="text-align: center;">File Two Copies</p> <p>Form No. 15</p>		

BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF ARIZONA

THE APPLICATION OF CONSOLIDATED OIL AND GAS, INC., TO DISPOSE OF SALT WATER IN CONSOLIDATED OIL AND GAS #1 NAVAJO WELL LOCATED 660 FEET FROM THE SOUTH AND 660 FEET FROM THE WEST LINE OF SECTION 2, TOWNSHIP 41 NORTH, RANGE 28 EAST, APACHE COUNTY, ARIZONA, THROUGH PERFORATIONS INTO THE AKAH FORMATION.

CASE NO. 35
EMERGENCY ORDER NO. 4-69

ORDER OF THE COMMISSION

BY THE COMMISSION

This cause was considered at 11:30 a.m. on February 26, 1969 at Phoenix, Arizona, by the OIL AND GAS CONSERVATION COMMISSION of the STATE OF ARIZONA, hereinafter referred to as the COMMISSION.

The COMMISSION, a quorum being present, having considered the facts presented and being fully advised in the premises, finds as follows:

FINDINGS:

- (1) THAT the COMMISSION has jurisdiction of the subject matter thereof.
- (2) THAT an emergency does exist and that due to the nature of the emergency, no public notice is required by law.
- (3) THAT Consolidated Oil and Gas, Inc., has made proper application to the COMMISSION for approval of its plan to dispose of salt water in subject well through perforations at a depth from 4897 feet to 4909 feet in the Akah Formation and to so condition the well that oil may be produced and the injection accomplished through the same well bore.
- (4) THAT evidence has been submitted showing the consent of all lease owners within a one mile radius of the well to this plan of operation and that approval of the Navajo Indian Tribe and the United States Geological Survey of the submitted plan has likewise been evidenced.

Case No. 35
E.O. No. 4-69
Page 2

(5) THAT undue economic hardship would be caused by an unwarranted delay in granting the COMMISSION'S permission to accomplish this purpose and that to allow Consolidated Oil and Gas, Inc., to proceed as outlined in the evidence submitted during this hearing is to the best public interest of the STATE OF ARIZONA.

IT IS THEREFORE ORDERED:

(a) THAT Consolidated Oil and Gas, Inc., is hereby authorized to dispose of salt water in the Consolidated Oil and Gas No. 1 Navajo Well located 660 feet from the south and 660 feet from the west line of Section 2, Township 41 North, Range 28 East, Apache County, Arizona, through perforations from a depth of 4897 feet to 4909 feet in the Akah Formation and to so condition the well that this salt water injection and production of oil from the Desert Creek Formation may be accomplished in the same well bore.

(b) THAT this order will expire thirty days from the date hereof.

DONE at Phoenix, Arizona, on the day and year hereinabove designated.

OIL AND GAS CONSERVATION COMMISSION
STATE OF ARIZONA

(S E A L)

By (Original signed)
Lucien B. Owens, Chairman

ATTEST:

(Original signed)
John Bannister
Executive Secretary

NOTICE OF HEARING
Case No. 35

Before the Oil and Gas Conservation Commission, State of Arizona.

APPLICATION OF CONSOLIDATED OIL AND GAS, INC., FOR AUTHORITY TO PRODUCE PETROLEUM FROM THE DESERT CREEK ZONE AND TO DISPOSE OF SALT WATER PRODUCED FROM THE DESERT CREEK ZONE BY INJECTION INTO THE AKAH ZONE IN THE #1 NAVAJO WELL LOCATED 660 FEET FROM THE SOUTH AND 660 FEET FROM THE WEST LINE OF SECTION 2, TOWNSHIP 41 NORTH, RANGE 28 EAST, APACHE COUNTY, ARIZONA, THROUGH PERFORATIONS IN THE AKAH ZONE.

NOTICE IS HEREBY GIVEN that a hearing will be held before the Oil and Gas Conservation Commission of the State of Arizona in Room 204, 1624 West Adams Street, Phoenix, Arizona, on the 19th day of March, 1969, at 10:00 o'clock a.m., upon application of Consolidated Oil and Gas, Inc., to dispose of salt water by injection into the Akah Zone in the #1 Navajo Well located in the SW/4 of Section 2, Township 41 North, Range 28 East, Apache County, Arizona.

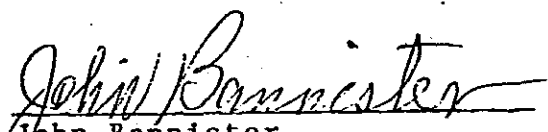
All persons interested in such matter may appear on said date and be heard.

DONE AND PERFORMED this 3rd day of March, 1969.

OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF ARIZONA


Lucien B. Owens, Chairman

ATTEST:


John Bannister
Executive Secretary

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN
(Other Instr
verse side)

Form approved.
Budget Bureau No. 42-R1421.

5. LEASE DESIGNATION AND SERIAL NO.

14-20-603-226

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo #7

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

East Boundary Butte

9. WELL NO.

2-41-28-13

10. FIELD AND POOL, OR WILDCAT

East Boundary Butte

11. SEC., T., R., M., OR BLM. AND
SURVEY OR AREA

Section 2, T41N-R28E

12. COUNTY OR PARISH

Apache

13. STATE

Arizona

SUNDRY NOTICES AND REPORTS ON WELLS
(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT" for such proposals.)

1. OIL WELL ☒ GAS WELL ☐ OTHER ☐

2. NAME OF OPERATOR

Consolidated Oil & Gas, Inc.

3. ADDRESS OF OPERATOR

Suite 1300 - 1860 Lincoln St., Denver, Colorado 80203

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.
See also space 17 below.)
At surface

C SW SW Section 2, T41N-R28E

660' FSL & 660' FWL

14. PERMIT NO.

Arizona 481

15. ELEVATIONS (Show whether DF, RT, GP, etc.)

5375' KB

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

FULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

SUBSEQUENT REPORT OF:

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

On or about February 26, 1969, Dual-complete well as an oil well pumping from perforations 4739 - 4743 and as a salt water disposal well injecting salt water into perforations 4897 - 4909. (Please see attached drawing for detail of all proposed equipment, perforations, and swab-test results. Also see attached plat showing location of all wells within an approximate three-mile radius.)

It is anticipated that approximately 100 barrels* of salt water per day may be injected down the long string of tubing into perforations 4897 - 4909. Anticipated surface pressure is 0 psi.

*Initial injected volume should not exceed 100 barrels water per day. At a later date it may be desired to increase this volume.

18. I hereby certify that the foregoing is true and correct

SIGNED

P. T. McGrath
P. T. McGrath

TITLE Petroleum Engineer

DATE 2/18/69

(This space for Federal or State office use)

APPROVED

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

FEB 24 1969

P. T. McGRATH
DISTRICT ENGINEER

*See Instructions on Reverse Side

RECEIVED

FEB 24 1969

U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

February 18, 1969

State of Arizona
Oil & Gas Conservation Commission
1624 West Adams - Room 202
Phoenix, Arizona 85007

Attention Mr. James A. Lambert

Re: Waiver to Consolidated Oil & Gas, Inc.'s
Proposal to Dispose of Salt Water in
Navajo #2-41-28-13, Sec. 2-T41N-R28E
Apache County, Arizona

Gentlemen:

Please be advised that Humble Oil & Refining Company has no objection to the proposal of Consolidated Oil & Gas, Inc. to dispose of approximately 100 barrels of salt water per day into perforations 4,897-4, 909 (478 to 466 ft. above sea level) in the captioned well.

It is understood that the subject well will be so cased and completed that salt water will not be injected (disposed of) into any other strata penetrated by the well and that the completion shall meet any other standards that the Commission has at the present time or may require in the future.

Very truly yours,

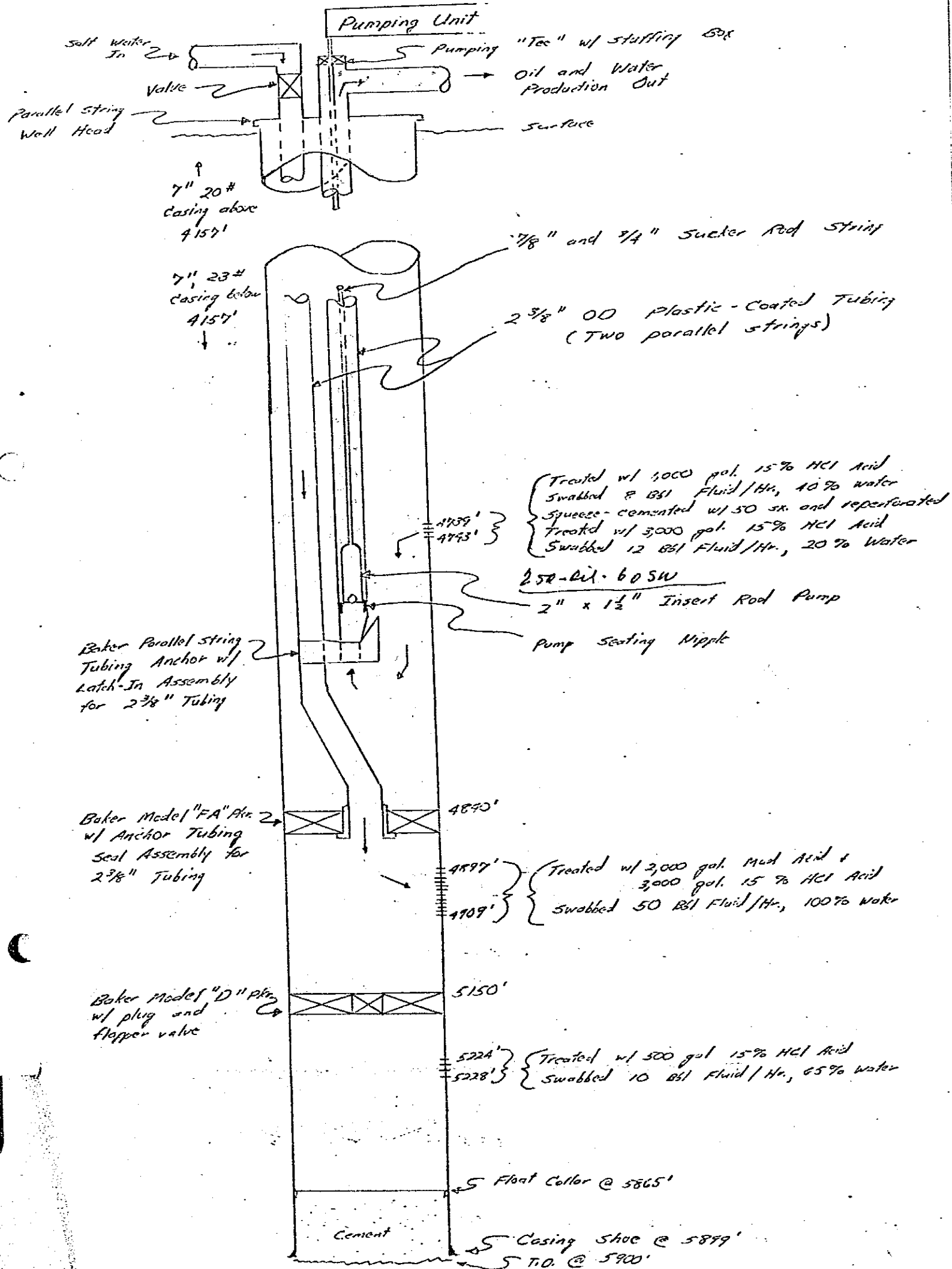
COPY ORIGINAL
SIGNED J. ROY DORROUGH

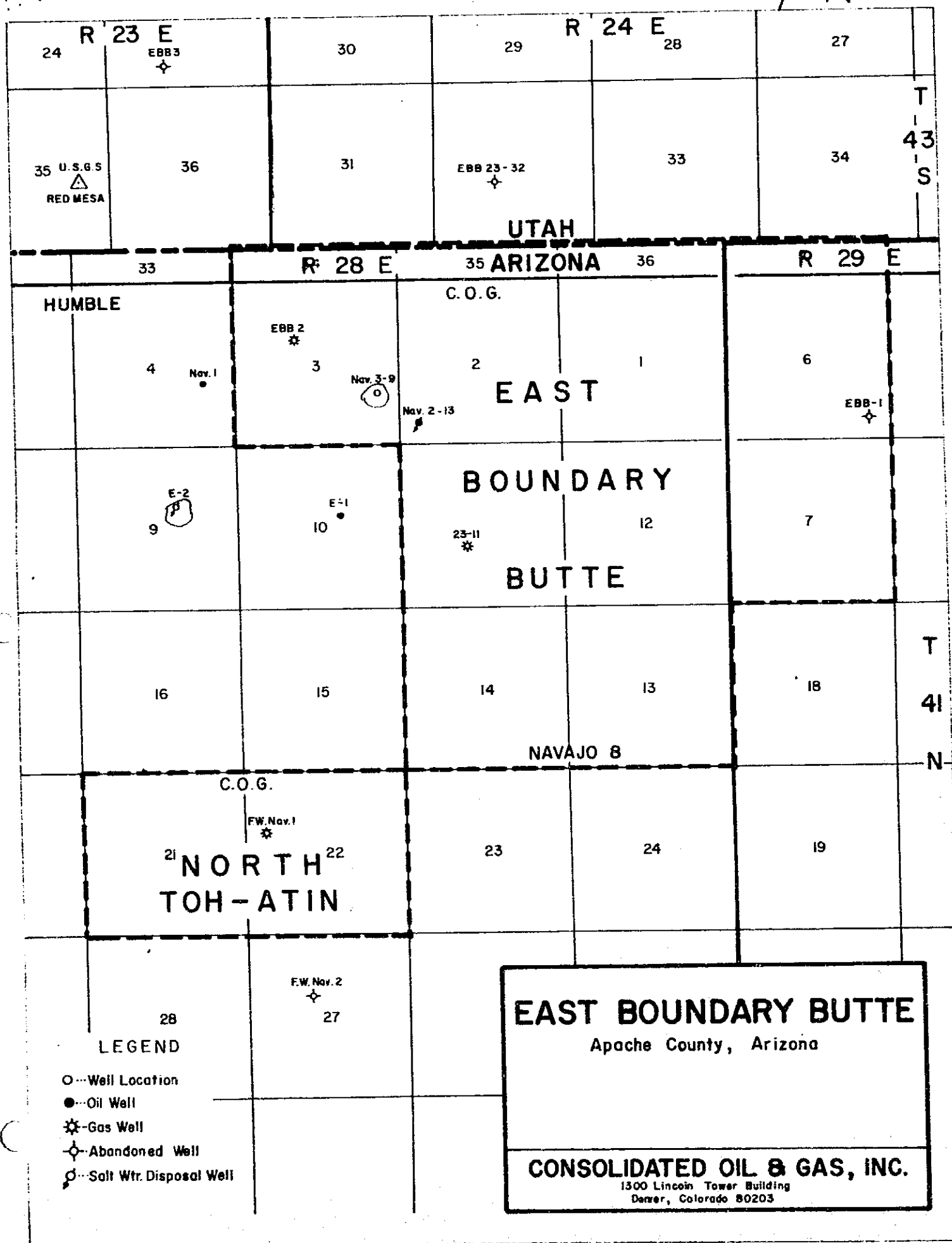
J. Roy Dorrough

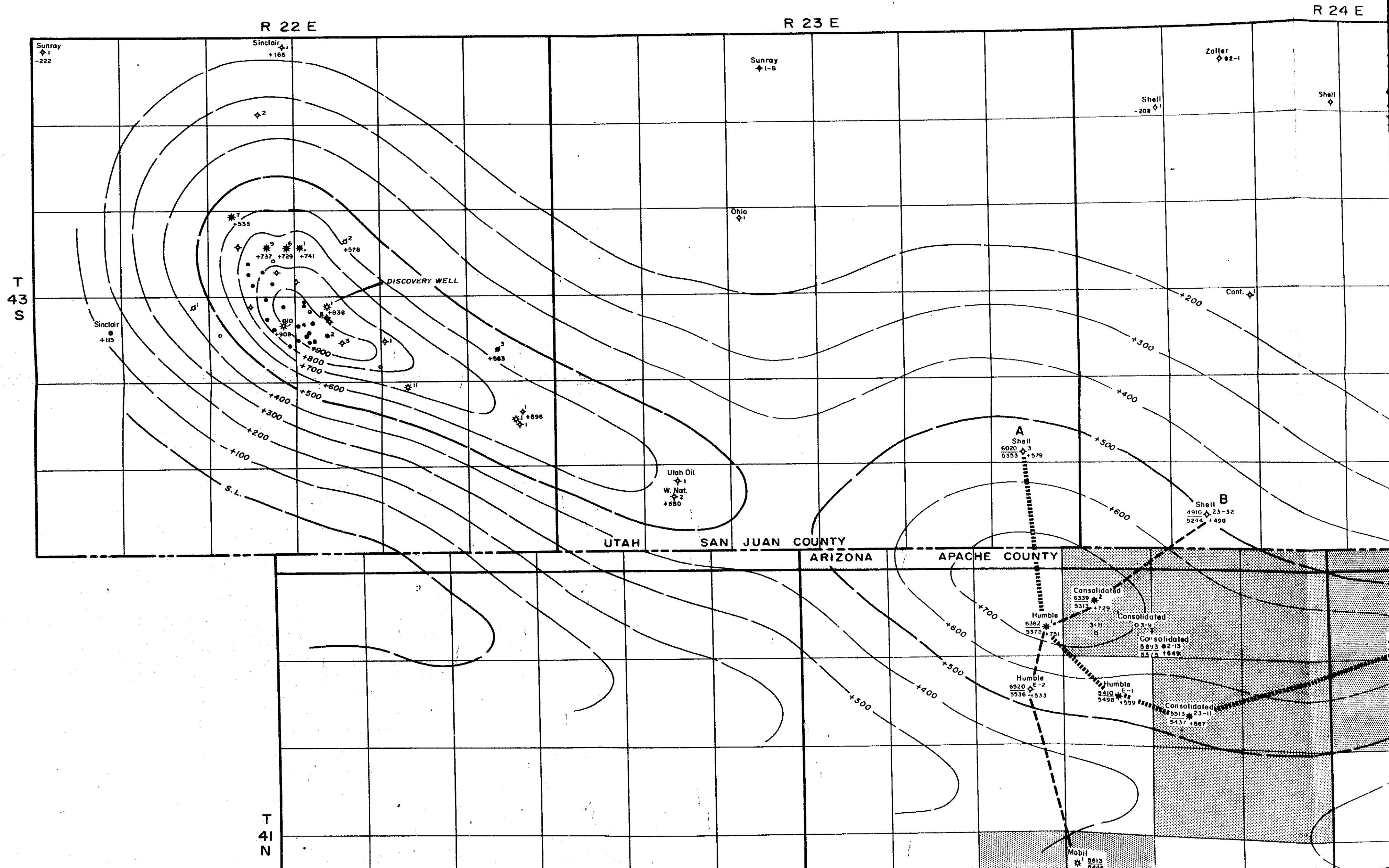
APPROVED FOR LEGAL
FORWARD

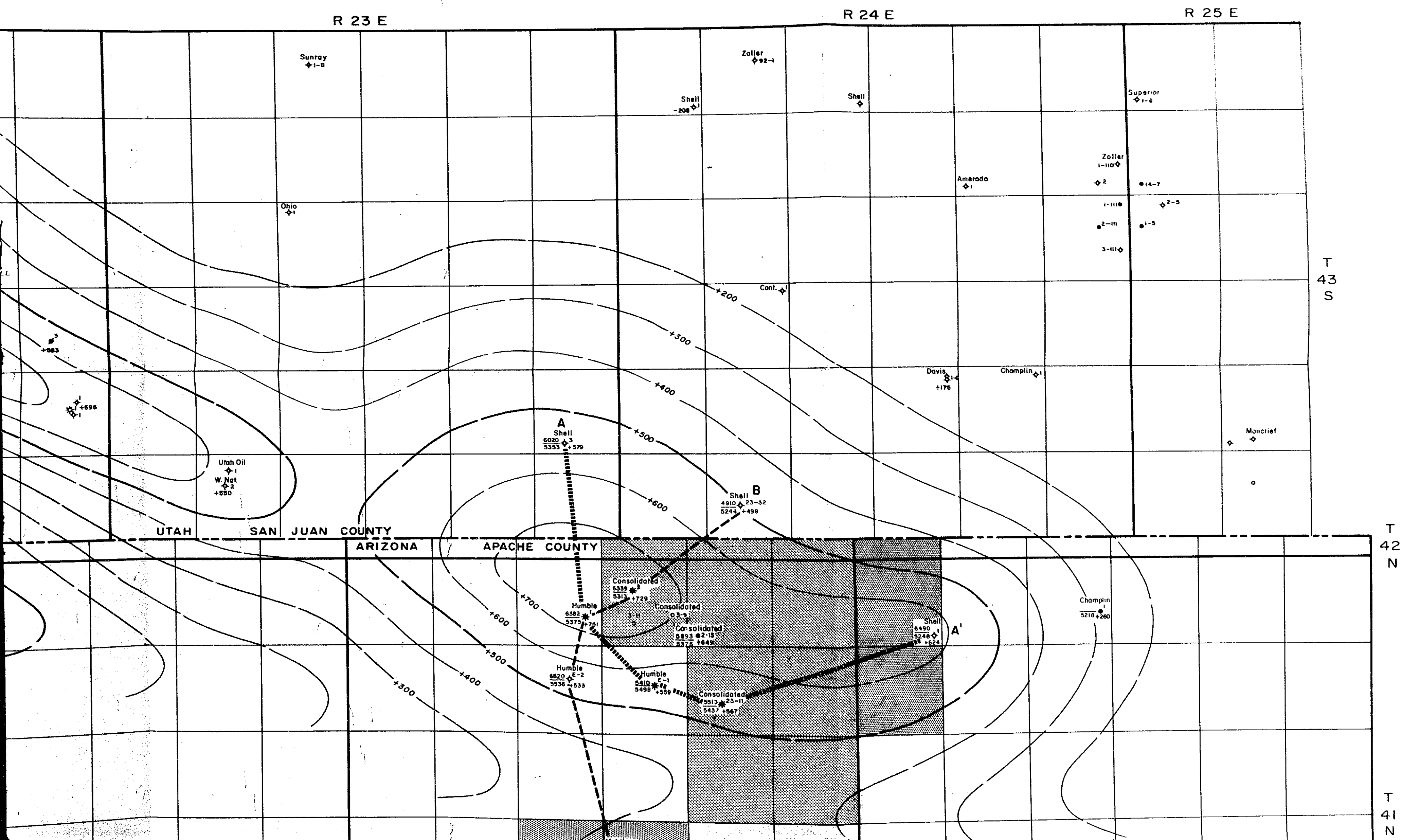
Sketch of Proposed
Multiple Completion
Navajo 2-41-28-13
East Boundary Bufile Field
Apache County, Ariz.
Feb. 18, 1969

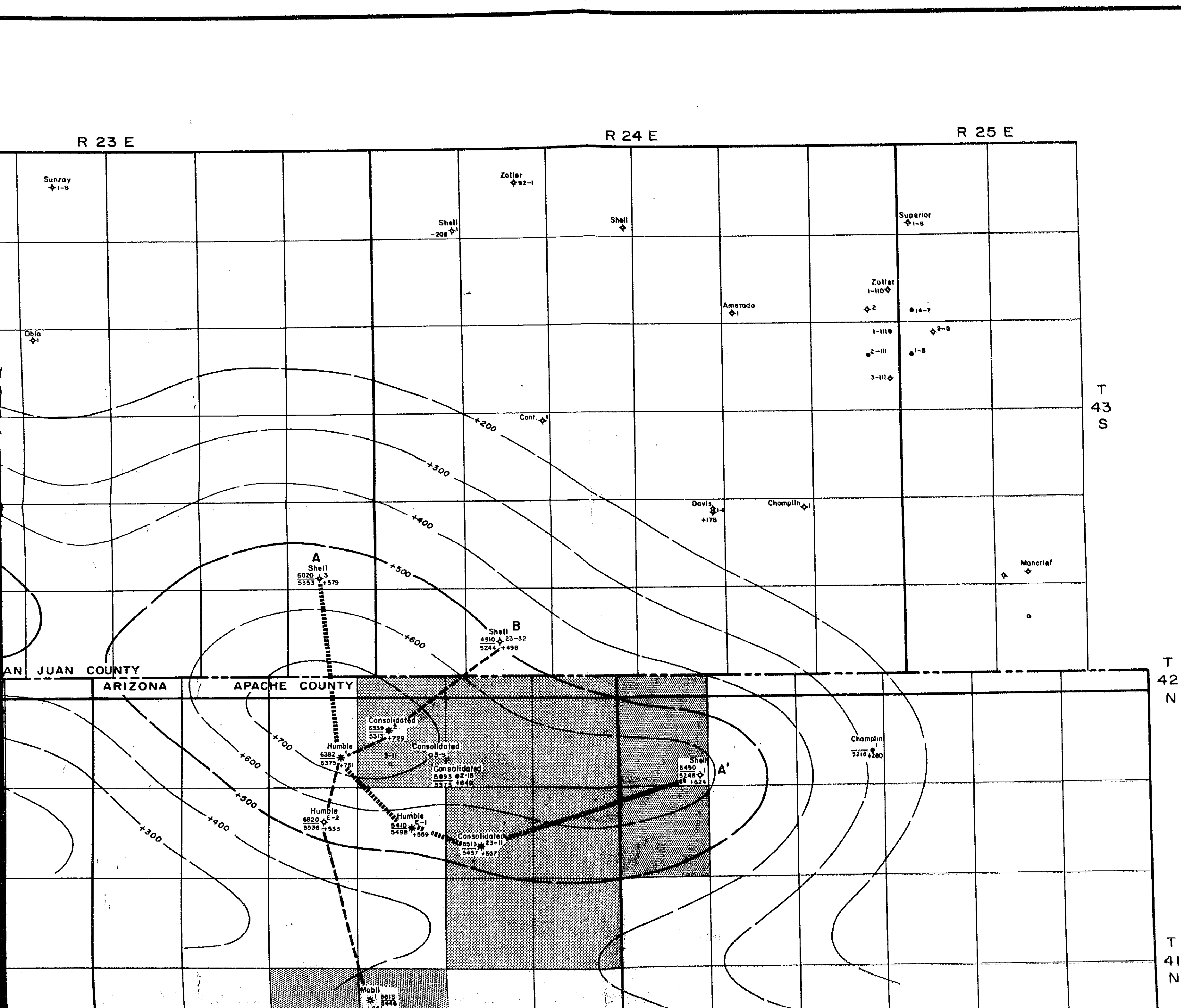
1-2-

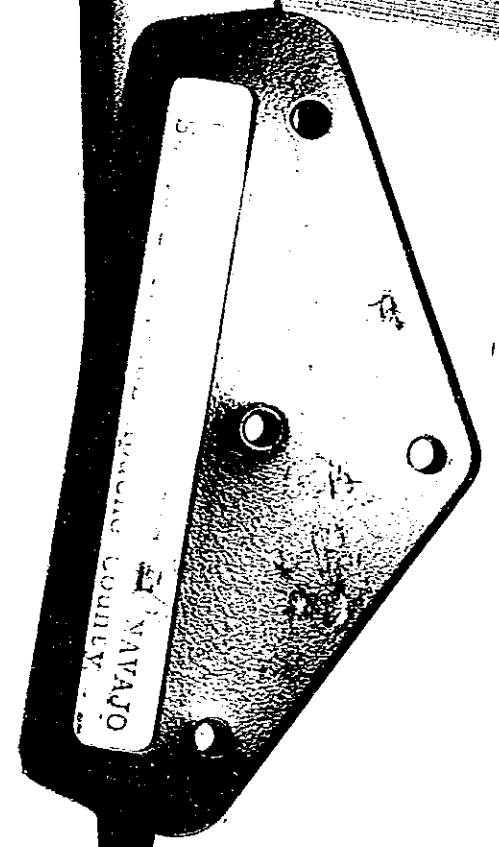
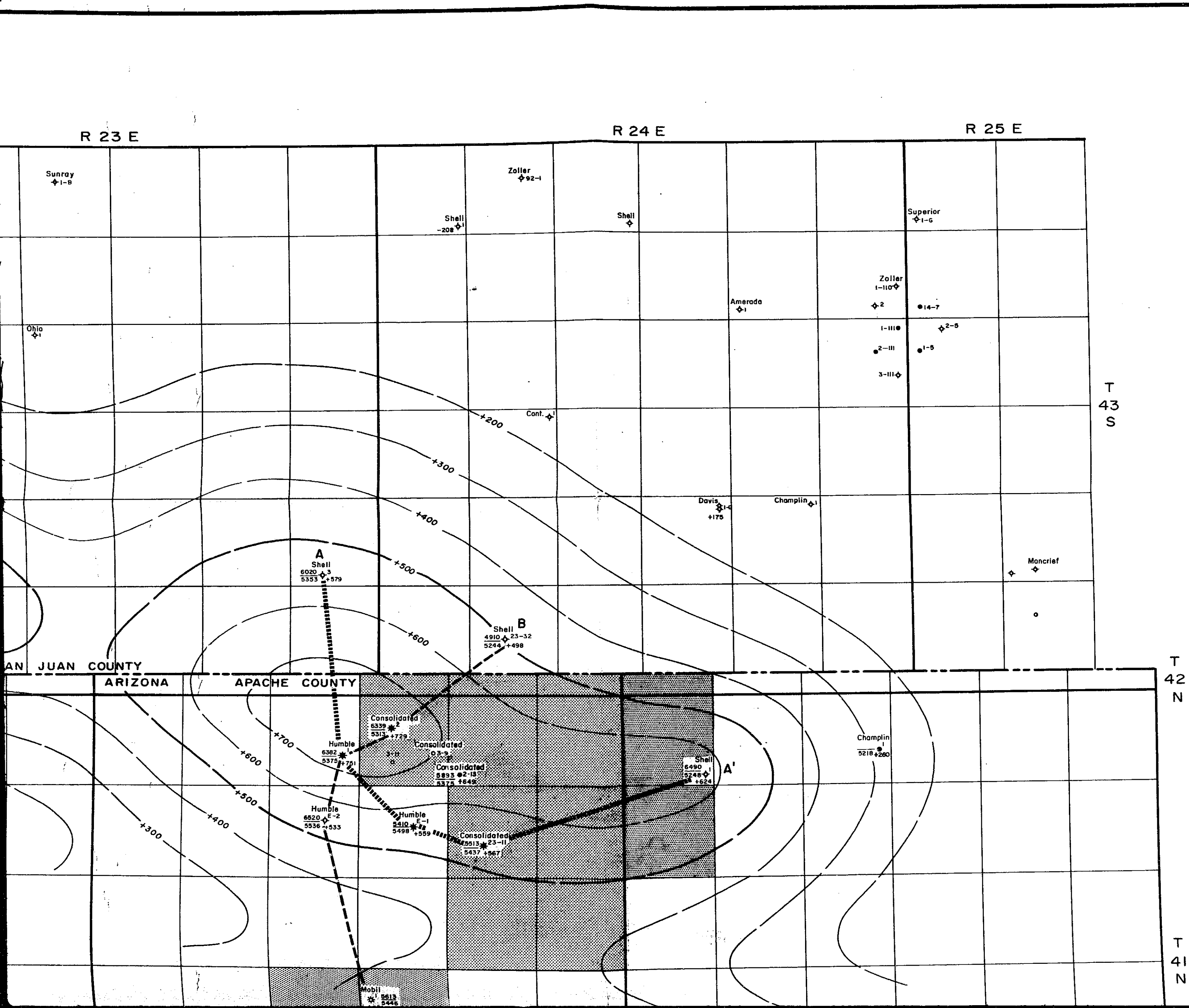


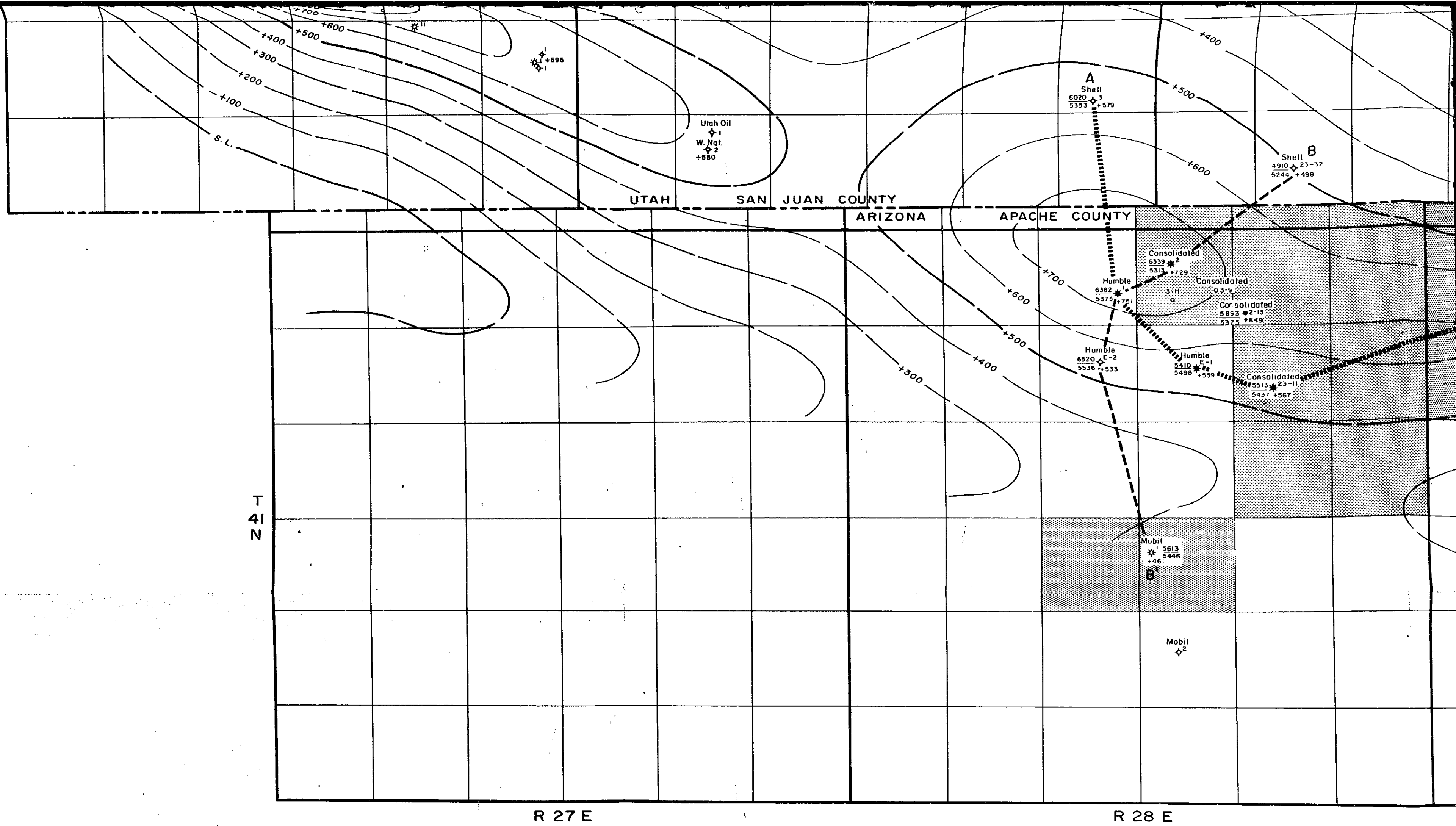




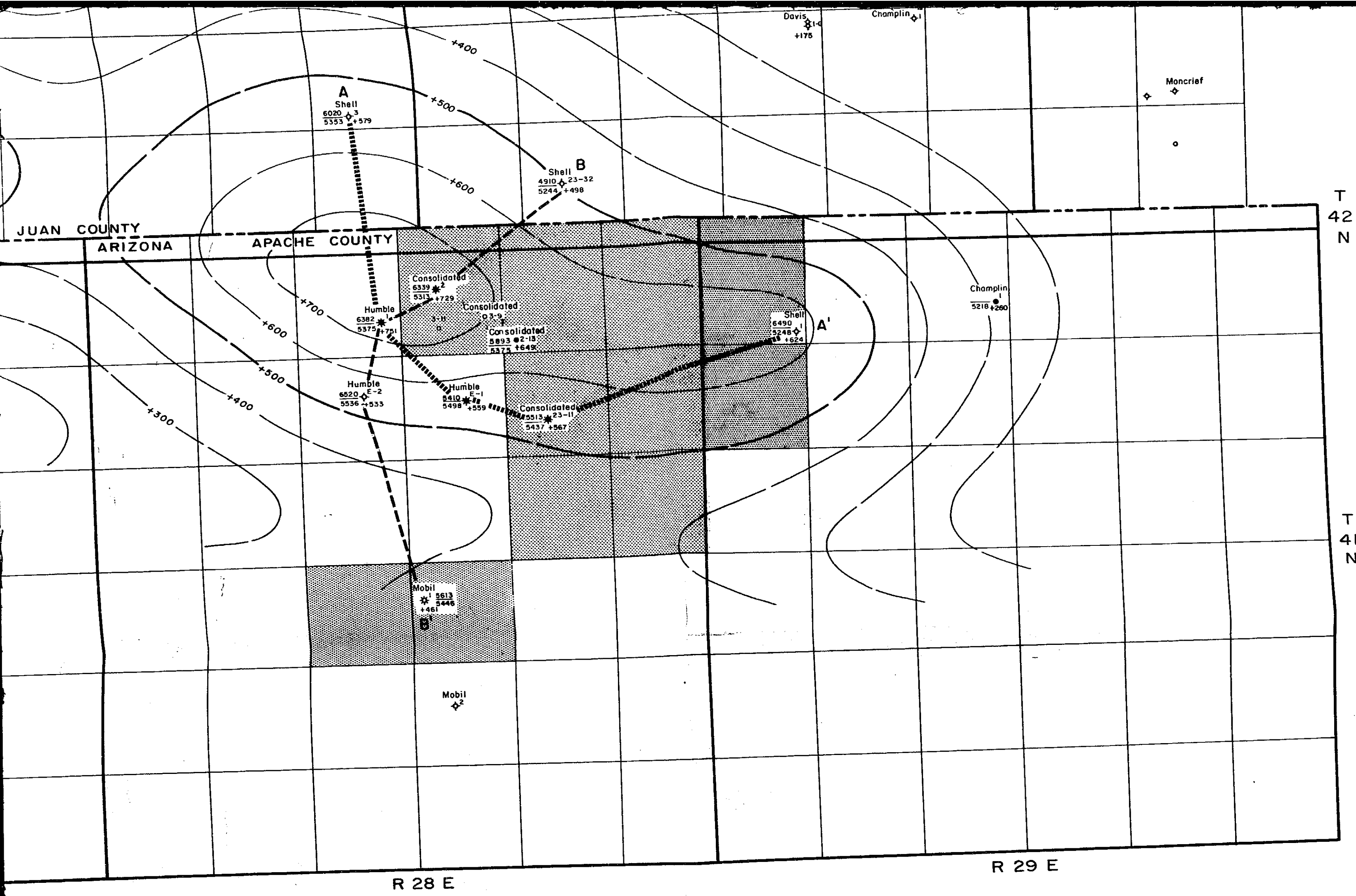








CONSOLIDATED 50%
KING RESOURCES 12 1/2%
POLUMBUS 10%
PETRO-LEWIS 27 1/2%.



CONSOLIDATED OIL & GAS, INC.

BOUNDARY BUTTE ANTICLINE

APACHE CO., ARIZONA and SAN JUAN CO., UTAH

STRUCTURAL CONTOURS ON TOP OF DESERT CREEK ZONE

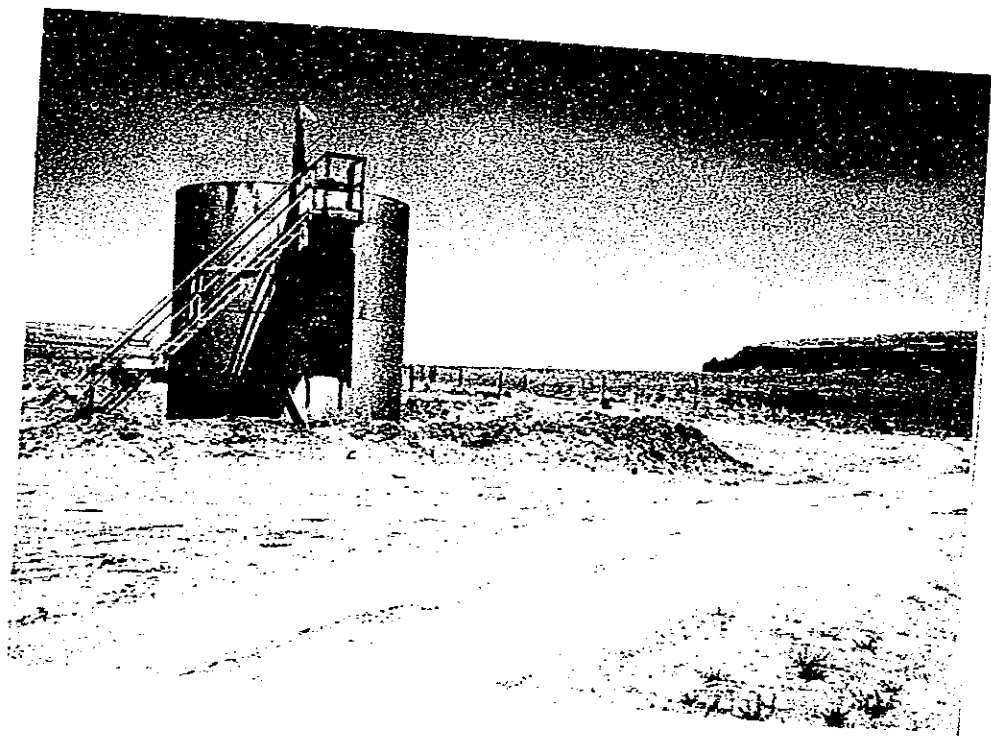
C. I. = 100'

SCALE: 1" = 4000'

DATE: FEB., 1969



Permit #481

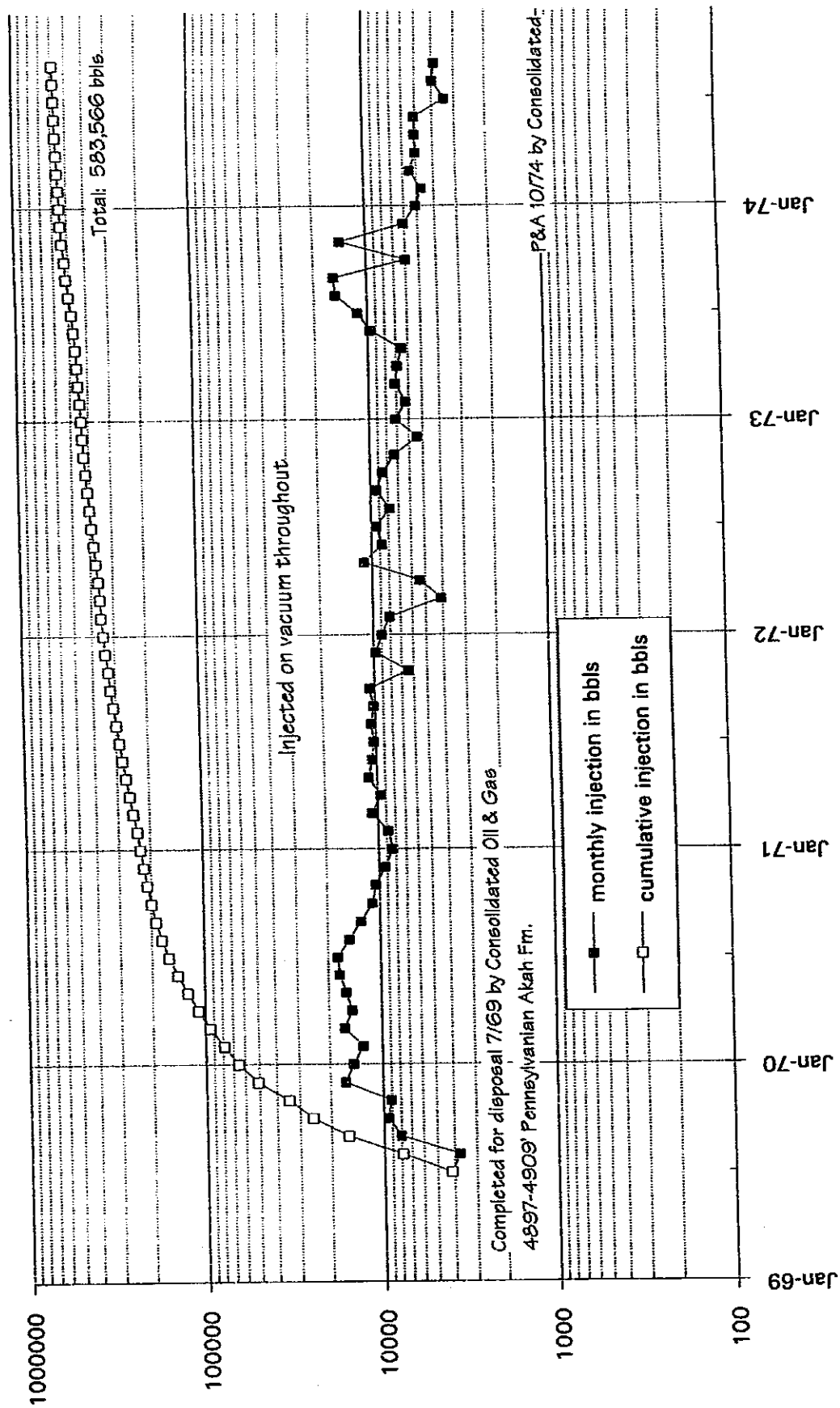


Tank Battery Permit #481

Merrion (Consolidated) 2-13 Nov 90.

SW SW 2, 41N - 28E

MONTHLY WATER DISPOSAL AT 2-13 NAVAJO (4811), EAST BOUNDARY BUTTE FIELD, ARIZONA: 8/69 - 9/74
 SW SW 2-41N-28E, Apache County



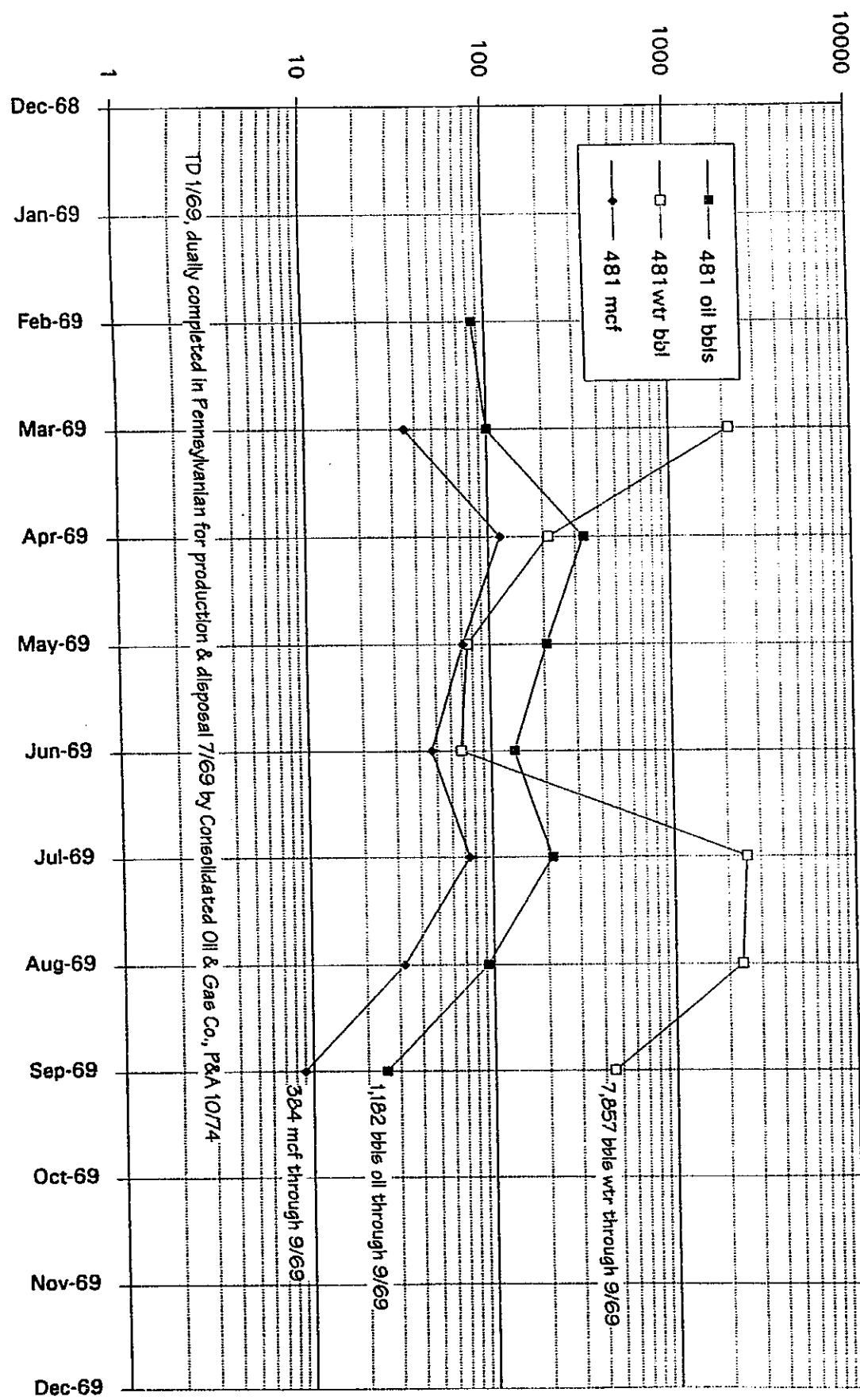
MONTHLY WATER DISPOSAL AT 2-13 NAVAJO (481), EAST BOUNDARY BUTTE FIELD, ARIZONA
(per SLR audit of producer's monthly injection reports 8/69 -- 9/74)

DATE	inj bbls	ave psi	cum bbls	comments
Jan-69				
Feb-69				
Mar-69				Consolidated Oil & Gas Co.
Apr-69				#2-13 Navajo (permit 481)
May-69				
Jun-69				
Jul-69	4136		4136	1st injection 7/69
Aug-69	3717		7853	4897'-4909'
Sep-69	8021		15874	Pennsylvanian Akah Fm.
Oct-69	9400		25274	
Nov-69	9038		34312	
Dec-69	16334		50646	
Jan-70	14661		65307	
Feb-70	12850		78157	
Mar-70	16292		94449	
Apr-70	14780		109229	
May-70	15925		125154	
Jun-70	17208		142362	
Jul-70	17604		159966	
Aug-70	15095		175061	
Sep-70	12912		187973	
Oct-70	11037		199010	
Nov-70	10532		209542	
Dec-70	9234		218776	
Jan-71	8334		227110	
Feb-71	8821		235931	
Mar-71	10818		246749	
Apr-71	9642		256391	
May-71	11182		267573	
Jun-71	10542		278115	
Jul-71	10262		288377	
Aug-71	10552		298929	
Sep-71	10255		309184	
Oct-71	10747		319931	
Nov-71	6403		326334	
Dec-71	9788		336122	
Jan-72	8961		345083	
Feb-72	8032		353115	
Mar-72	4077		357192	
Apr-72	5388		362580	
May-72	11076		373656	
Jun-72	8746		382402	
Jul-72	9374		391776	
Aug-72	7858		399634	
Sep-72	9315		408949	
Oct-72	8528		417477	

MONTHLY WATER DISPOSAL AT 2-13 NAVAJO (481), EAST BOUNDARY BUTTE FIELD, ARIZONA
(per SLR audit of producer's monthly injection reports 8/69 -- 9/74)

DATE	inj bbls	ave psi	cum bbls	comments
Nov-72	7301		424778	
Dec-72	5384		430162	
Jan-73	7093		437255	
Feb-73	6245		443500	
Mar-73	7082		450582	
Apr-73	6890		457472	
May-73	6503		463975	
Jun-73	9659		473634	
Jul-73	11361		484995	
Aug-73	15211		500206	
Sep-73	15502		515708	
Oct-73	5975		521683	
Nov-73	14030		535713	
Dec-73	6050		541763	
Jan-74	5134		546897	
Feb-74	4710		551607	
Mar-74	5460		557067	
Apr-74	5046		562113	
May-74	5070		567183	
Jun-74	5100		572283	
Jul-74	3410		575693	
Aug-74	3993		579686	
Sep-74	3880		583566	Sold to Merrion & Bayless
Oct-74				
Nov-74				P&A 10/15/74 by Consolidated Oil & Gas
Dec-74				

MONTHLY PRODUCTION AT 2-13 NAVAJO (481), ARIZONA: FEB 1969 - SEP 1969
 SW SW 2-41n-28e, East Boundary Butte Field, Apache County



MERRION OIL & GAS CORPORATION

610 REILLY AVE. • P. O. Box 840
FARMINGTON, NEW MEXICO 87499

RECEIVED PH. 505-327-9801

NOV 24 1986

O & G CONS. COMM.

November 20, 1986

Arizona Oil & Gas Conservation Commission
3110 N. 19th Avenue, Suite 190
Phoenix, Arizona 85007

Attention: Rudy Ybarra

Re: Well Status
East Boundary Butte
Apache Co., Arizona

Dear Mr. Ybarra:

Enclosed please find the "Notice of Intent to" and "Subsequent Report of" sundry notices for the plugging and abandonment of the Navajo 23-11 and the Navajo 2-11. Both wells are located in Section 11, T41N, R28E in Apache Co., Arizona.

The following is a list of the status of the wells which Merrion Oil and Gas operates in the East Boundary Butte Field, Apache Co., Arizona:

LEASE	WELL NAME	STATUS
14-20-603-226	Navajo No. 2 <i>22</i>	SI Gas Well
	Navajo No. 2-13 <i>151</i>	P & A
	Navajo No. 3-3 <i>514</i>	SI
	Navajo No. 3-11 <i>518</i>	SI
14-20-603-227	Navajo No. 2-11 <i>518</i>	P & A
	Navajo No. 23-11 <i>69</i>	P & A
14-20-603-412	Navajo No. E-1 <i>578</i>	P & A
14-20-603-413	Navajo No. 1 <i>28</i>	Pumping Oil Well
	Navajo No. 3 <i>515</i>	Salt Water Disposal

If you need any additional information, please advise.

Respectfully yours,

MERRION OIL & GAS CORPORATION

T. Gregory Merrion

T. Gregory Merrion, Production Engineer

TGM/am

Enc.

MERRION OIL & GAS CORPORATION

610 REILLY AVE. • P. O. Box 840
FARMINGTON, NEW MEXICO 87499

RECEIVED PH. 505-327-9801

NOV 24 1986

O & G CONS. COMM.

November 20, 1986

Arizona Oil & Gas Conservation Commission
3110 N. 19th Avenue, Suite 190
Phoenix, Arizona 85007

Attention: Rudy Ybarra

Re: Well Status
East Boundary Butte
Apache Co., Arizona

Dear Mr. Ybarra:

Enclosed please find the "Notice of Intent to" and "Subsequent Report of" sundry notices for the plugging and abandonment of the Navajo 23-11 and the Navajo 2-11. Both wells are located in Section 11, T41N, R28E in Apache Co., Arizona.

The following is a list of the status of the wells which Merrion Oil and Gas operates in the East Boundary Butte Field, Apache Co., Arizona:

LEASE	WELL NAME	STATUS
14-20-603-226	Navajo No. 2 <i>23</i>	SI Gas Well
	Navajo No. 2-13 <i>451</i>	P & A ✓
	Navajo No. 3-3 <i>514</i>	SI
	Navajo No. 3-11 <i>422</i>	SI
14-20-603-227	Navajo No. 2-11 <i>518</i>	P & A
	Navajo No. 23-11 <i>67</i>	P & A
14-20-603-412	Navajo No. E-1 <i>58</i>	P & A
14-20-603-413	Navajo No. 1 <i>28</i>	Pumping Oil Well
	Navajo No. 3 <i>512</i>	Salt Water Disposal

also 2 Navajo E

If you need any additional information, please advise.

Respectfully yours,

MERRION OIL & GAS CORPORATION

T. Gregory Merrion

T. Gregory Merrion, Production Engineer

TGM/am

Enc.

February 3, 1978

Mr. Robert R. Rosnik
Consolidated Oil and Gas, Inc.
1860 Lincoln Street
Denver, Colorado 80295

Re: Blanket Performance Bond USF&G 31380-13-99-68

Dear Mr. Rosnik:

Consolidated Oil and Gas, Inc., has complied with all the rules and regulations of the Arizona Oil and Gas Conservation Commission. Therefore, I am authorized to release Consolidated Oil and Gas, Inc., from all responsibilities under this bond.

USF&G is being notified by the Oil and Gas Conservation Commission, by copy of this letter, of the release of the bond.

Very truly yours,

W. E. Allen
Director
Enforcement Section

WEA/vb

cc - USF&G

We do not have the address of the issuing office of the referred bond, therefore we are asking you to forward USF&G's copy of this letter to the correct office.

481

Operator Consolidated Oil & Gas, Inc.

Bond Company U.S.F. & G. Amount 25,000

Bond No. 31380-13-99-68 Date Approved 2-13-68

Permits covered by this bond:

22

69

481

488

490

514

524

528

32

518

CANCELLED

DATE 2-2-79 *WBL*

SEE FILE 518

FOR CANCELLED
BOND

DATE

CANCELLED

February 5, 1976

Mr. J. Gregory Merrion
Merrion & Bayless
P. O. Box 1541
Petroleum Club Plaza
Farmington, NM 87401

RE: U. S. Fidelity & Guaranty Company
Surety Bond #01-0130-972-74

Dear Greg:

Back on October 23, 1974, you requested your surety, USF&G, to notify you of their acceptance of the wells that you had recently taken over from Consolidated Oil & Gas. A check of our files indicates that USF&G never responded to your request.

We have received a request for cancellation of a bond that technically still covers some wells that you as operator have also covered under the above referenced bond. Before, we can comply with the request for the release of this bond, we must have a written statement from USF&G assuming bonding responsibilities of these wells.

Will you please have USF&G write this Commission agreeing to assume bonding responsibilities for all the wells that you operate in this state. The reason that this acknowledgement from USF&G is necessary is because this blanket bond states, "any and all oil and gas wells drilled within the state of Arizona". Our opinion is that legally USF&G could claim that only wells actually drilled by you were covered under Bond #01-0130-972-74.

We will appreciate your cooperation in this matter.

Sincerely,

W. E. Allen, Director
Enforcement Section

WEA/sl

481



Consolidated Oil & Gas, Inc.

LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

November 12, 1974

Oil and Gas Conservation Commission
State of Arizona
4515 North 7th Avenue
Phoenix, Arizona 85013

Attention: Mr. W. E. Allen, Director
Enforcement Section

Re: Well No. 2-41-28-13
Sec. 2, T41N, R28E
Apache County, Arizona

Gentlemen:

Enclosed please find completed Form No. 10, "Plugging
Record," covering the above captioned well.

Yours very truly,

CONSOLIDATED OIL & GAS, INC.

Floyd E. Ellison, Jr.

Floyd E. Ellison, Jr.
Area Production Manager

FEE:lt
Enclosure

RECEIVED

NOV 18 1974

O & G CONS. COMM.

481

November 4, 1974

Mr. Floyd E. Ellison, Jr.
Area Production Manager
Consolidated Oil & Gas, Inc.
Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Re: Franco Western Navajo #1
22-T41N-R28E
Apache Co., Permit #32

Consolidated #1 Navajo
2-T41N-R28E
Apache Co., Permit #481

Dear Mr. Ellison:

Your application to plug the above referenced wells was received on August 19, 1974. Please advise if this work has been performed, and if not, when you expect to complete the plugging of these wells.

When the plugging has been completed, it will be necessary that you submit Form 10, plugging report, to this Commission.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/rlb

Enc.



LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

Consolidated Oil & Gas, Inc.

August 15, 1974

State of Arizona
Oil and Gas Conservation Commission
4515 North 7th Avenue
Phoenix, Arizona 85013

Re: Well No. 2-41-28-13
Sec. 2, T41N, R28E
Apache County, Arizona

Gentlemen:

Enclosed please find two copies of Form No. 9, "Application to Abandon and Plug," covering the above captioned well.

Yours very truly,

CONSOLIDATED OIL & GAS, INC.

Floyd E. Ellison, Jr.

Floyd E. Ellison, Jr.
Area Production Manager

FEE:lt
Enclosures

RECEIVED
AUG 19 1974
O & G CONS. COMM.

481

September 14, 1972

Mr. Joe A. Larkin
Consolidated Oil & Gas Inc.
1860 Lincoln Street
Lincoln Tower Building
Denver, Colorado 80203

Re: Water Injection Report, Form 14

We have revised (Form 14) Water Injection Report and are sending a supply of these revised forms for your use. We hope that you will find this form to be somewhat more convenient than the old forms.

Very truly yours,

W. E. Allen, Director
Enforcement Section

WEA/r1b

Encs.

481

May 13, 1970

Mr. D. E. Smink
Consolidated Oil & Gas, Inc.
Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Re: Consolidated Oil & Gas #1 Navajo
SW/4 SW/4 Sec. 2-T41N-R28E
Apache County
Our File #481

Dear Mr. Smink:

By letter of April 7, 1970, we requested that you submit the monthly injection report on the captioned well for the month of April and all previous injection. This is to remind you that we would like to receive this data as soon as possible.

Sincerely,

John Bannister
Executive Secretary

jd

April 7, 1970

Mr. D. E. Smink
Consolidated Oil & Gas, Inc.
Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Re: Consolidated #1 Navajo
SW/4 SW/4 Sec. 2-T41N-R28E
Apache County
Our File #481

Dear Mr. Smink:

According to your letter of March 19, 1970, we understand that the subject well is being used as an injection well only. As long as this well is used for injection purposes it is necessary that you submit a monthly injection report to this office. A supply of the required form is enclosed. When you submit the monthly injection report for April please include forms showing the amounts injected in previous months, thus bringing this office up to date concerning the total amount of injection. Thank you for your cooperation.

Sincerely,

John Bannister
Executive Secretary

jd
Enc.



LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

Consolidated Oil & Gas, Inc.

March 19, 1970

State of Arizona
Oil and Gas Conservation Commission
1624 W. Adams -- Room 202
Phoenix, Arizona 85007

Attention: Mr. John Bannister

Re: No. 1 Navajo (No. 2-41-28-13)
SW SW Sec. 2, T41N-R28E
Apache County, Arizona

Gentlemen:

Your letter of March 16, 1970, addressed to Mr. Green of this office was referred to me for reply.

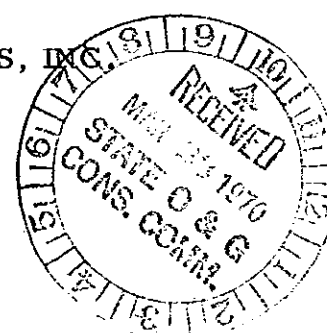
The configuration of the subject well is the same as that shown on a sketch dated July 15, 1969, and submitted to you by letter of July 23, 1969, together with Form 4. We have, however, removed the insert rod pump, sucker rod string, and pumping unit from the well since the Lower Paradox completion (perforations 5224-28') yielded a non-commercial volume of oil. Salt water disposal (injection) is being conducted down the short string of tubing into perforations 4897-4909'; and former producing perforations 4739-43' and 5224-28' are shut-in. We have no immediate plans for returning the well to a producing status.

Please advise us if you should require further information or resubmittal of Form 4.

Very truly yours,

CONSOLIDATED OIL & GAS, INC.

D. E. Smink
D. E. Smink
Petroleum Engineer



DES/cc

481

March 16, 1970

Mr. Bill Greene
Consolidated Oil & Gas, Inc.
Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Re: Consolidated Oil & Gas #1 Navajo
SW/4 SW/4 Section 2-T41N-R28E
Apache County
Our File #481

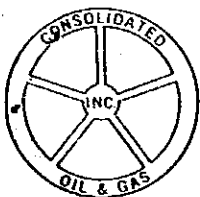
Dear Mr. Greene:

In a telephone conversation in February of this year you indicated that you would let this office know if the captioned well should be considered as an injection well only since the Monthly Producer's Report shows that this well has had no production since October, 1969. We would appreciate getting some information on this matter so that we can get our records in order.

Sincerely,

John Bannister
Executive Secretary

JB:jd



LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

Consolidated Oil & Gas, Inc.



September 19, 1969

Mr. John Bannister, Executive Secretary
Oil & Gas Conservation Commission
State of Arizona
Room 202, 1626 West Adams
Phoenix, Arizona 85007

Re: Off-lease Storage of Crude Oil
Navajo No. 3, East Boundary Butte Field
Apache County, Arizona

Dear Mr. Bannister:

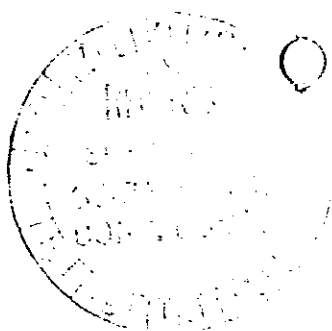
514 Consolidated Oil & Gas, Inc. is presently completing the Navajo
No. 3 oil well located in the SW/4 SW/4, Section 3, T41N, R28E,
Apache County.

481 We have not been able to secure pipe line connections into the Four
Corners line, therefore it will be necessary to truck oil produced from
this well to the Red Mesa Station. We have a tank battery near our
Navajo No. 1 location in the SW/4 SW/4 of Section 2. Your records may
indicate that this well is called Navajo No. 2-13; however, we have
changed the number in compliance with your directive. The ownership
in the Navajo No. 1 located in Section 2 and Navajo No. 3 located in
Section 3 is different insofar as working interest owners are concerned.

We propose to move oil from the Navajo No. 3 Well to the common
tank battery located in Section 2. The oil will be metered separately and
then stored in common tanks. At no time will this production be
commingled prior to metering.

If this proposal meets with your approval, please execute one copy
of this letter and return to me. If you have any questions, do not hesitate

Mr. John Bannister
Page 2
September 19, 1969



to call me. This method of handling the oil is necessary, in our opinion, because of the isolated area and because of the severe winter weather conditions.

Yours very truly,

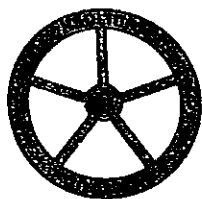
CONSOLIDATED OIL & GAS, INC.

Wayne Rogers
Wayne Rogers

WR:lt

APPROVED: John Bannister/9c

DATE: 9/22/69



LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

Consolidated Oil & Gas, Inc.

July 23, 1969

4
State of Arizona
Oil & Gas Conservation Commission
1624 West Adams - Room 202
Phoenix, Arizona 85007

Attention: Mr. James A. Lambert

Gentlemen:

Re: Navajo No. 1
(No. 2-41-28-13)
C SW SW Section 2, T-41N, R-28E
Apache County, Arizona

Please find attached the original and two xerox copies of Form 4 reporting the completion of the subject well. Attached to each Form 4 is a sketch of wellbore equipment and completion intervals. Copies of all log and DST data from this well were forwarded to you by letters of January 29 and February 6, 1969.

Please let us know if you should desire further information.

Very truly yours,

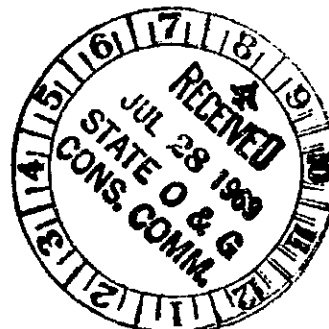
CONSOLIDATED OIL & GAS, INC.

D. E. Smink

D. E. Smink
Petroleum Engineer

DES/sc
Enclosures

cc: The Navajo Tribe
Minerals Department



481

X-Lambert
X-Chrono

April 23, 1969

Mr. Wayne Rogers
Consolidated Oil & Gas, Incorporated
Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Re: Consolidated Oil & Gas #1 Navajo
T41N, R28E, G & SRM
Sec. 2: SW/4 SW/4
Apache County
Permit #481

Consolidated Oil & Gas #2 Navajo
T41N, R28E, G & SRM
Sec. 3: NE/4 SE/4
Apache County
Permit #488 X

Dear Mr. Rogers:

On reviewing the letter issued over John Bannister's signature dated April the 21st, I erred.

We suggest that you carry the well covered by our Permit #481 as Consolidated Oil & Gas #1 Navajo. The well covered by Permit #488 should be designated the Consolidated Oil & Gas #2 Navajo. My personal apologies for the confusing letter of April 21.

Yours truly,

James A. Lambert
Administrative Assistant

JAL:jf

X-Lambert
X-Chrono

April 21, 1969

Mr. Wayne Rogers
Consolidated Oil & Gas, Incorporated
Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Re: Consolidated Oil & Gas #1 Navajo
T41N, R28E, G & SRM
Sec. 2: SW/4 SW/4
Apache County
Permit #481

Consolidated Oil & Gas #3 Navajo
T41N, R28E, G & SRM
Sec. 3: NE/4 SW/4
Apache County
Permit #490 X

Dear Mr. Rogers:

Consolidated's proposal to lay a flow line from the #3 Navajo Well to the tank battery located proximate to the Consolidated #1 Well as outlined in the penultimate paragraph of your letter dated April 18, 1969, is approved by this Commission.

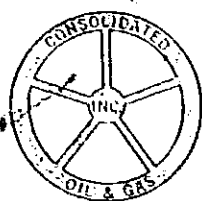
We suggest that you carry the well covered by our Permit #488 X as Consolidated Oil and Gas #2 Navajo as outlined in our letter to you dated April 18, 1969. In all other respects your nomenclature of wells is in accordance with that terminology used by the State of Arizona.

Yours truly,

John Bannister
Executive Secretary

JAL:jf

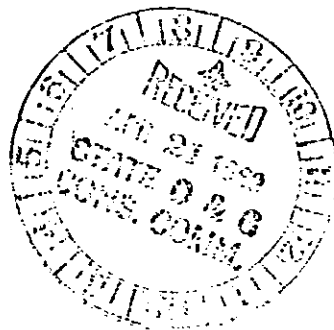
481



LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

Consolidated Oil & Gas, Inc.

April 18, 1969



State of Arizona
Oil & Gas Conservation Commission
1624 West Adams, Room 202
Phoenix, Arizona 85007

Attention: Mr. John Banister

Gentlemen:

East Boundary Butte Field
Apache County, Arizona

Consolidated Oil & Gas, Inc. acquired certain wells from Shell Oil in the East Boundary Butte field and one well from Mobil Oil in what is referred to as the North Toh-Atin field, all located in Apache County, Arizona. The two gas wells purchased from Shell in the East Boundary Butte field are known as the Navajo No. 2, located in the SE NW of Section 3, and Navajo No. 23-11, 69 located in NE SW of Section 11, T41N-R28E. The Mobil well 32 (Franco Western), Navajo No. 1, is located in the SW NW of Section 22. These names are being used by Consolidated.

Since acquiring the acreage, Consolidated drilled and completed its Navajo No. 2-13, located in the SW SW of Section 2. This well is carried on your records as the No. 1 Navajo under Permit No. 481. It is the dual oil producing and water disposal well. *okay*

Consolidated drilled and is currently completing its Navajo No. 3-11, located in the NE SW of Section 3. You call this well the No. 3 Navajo under Permit No. 490. Your Permit No. 488 for the No. 2 Navajo was for a location in the NE SE of Section 3. Consolidated carries this location as the Navajo No. 3-9, and the well has not been drilled.

481

O.K.

State of Arizona
Oil & Gas Commission
Page 2
April 18, 1969

Attached to this letter is a map of the area showing our well locations with Consolidated's designated well numbers. If necessary, we will change our well numbers to meet the requirements of your department.

Consolidated proposes to lay a flow line from the well located in the NE SW of Section 3, Permit No. 490, to the tank battery located near the well in the SW SW of Section 2, Permit No. 481. We propose to produce the full well stream through the pipeline into a heater treater which will be equipped with an oil meter. The oil will be metered to a common tank battery along with oil from our Navajo No. 2-13 well. A difference in working interest owners exists between these two wells. However, the rights of the working interest owners and royalty owners will be protected by metering the oil in accordance with good oil field practices. Oil from our No. 23-11 well is transported through Four Corners Pipeline; however, we are having to truck the oil from our Navajo No. 2-13 well, Permit No. 481. Consequently, oil from our Navajo No. 3-11, Permit No. 490, will also be trucked. Form 8 has been filed with your office.

Even though you have given verbal approval of this proposal, it would be appreciated if you would give us written approval for our records. If you need any additional information, please call me collect.

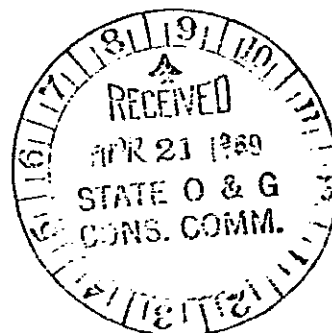
Yours truly,

CONSOLIDATED OIL & GAS, INC.

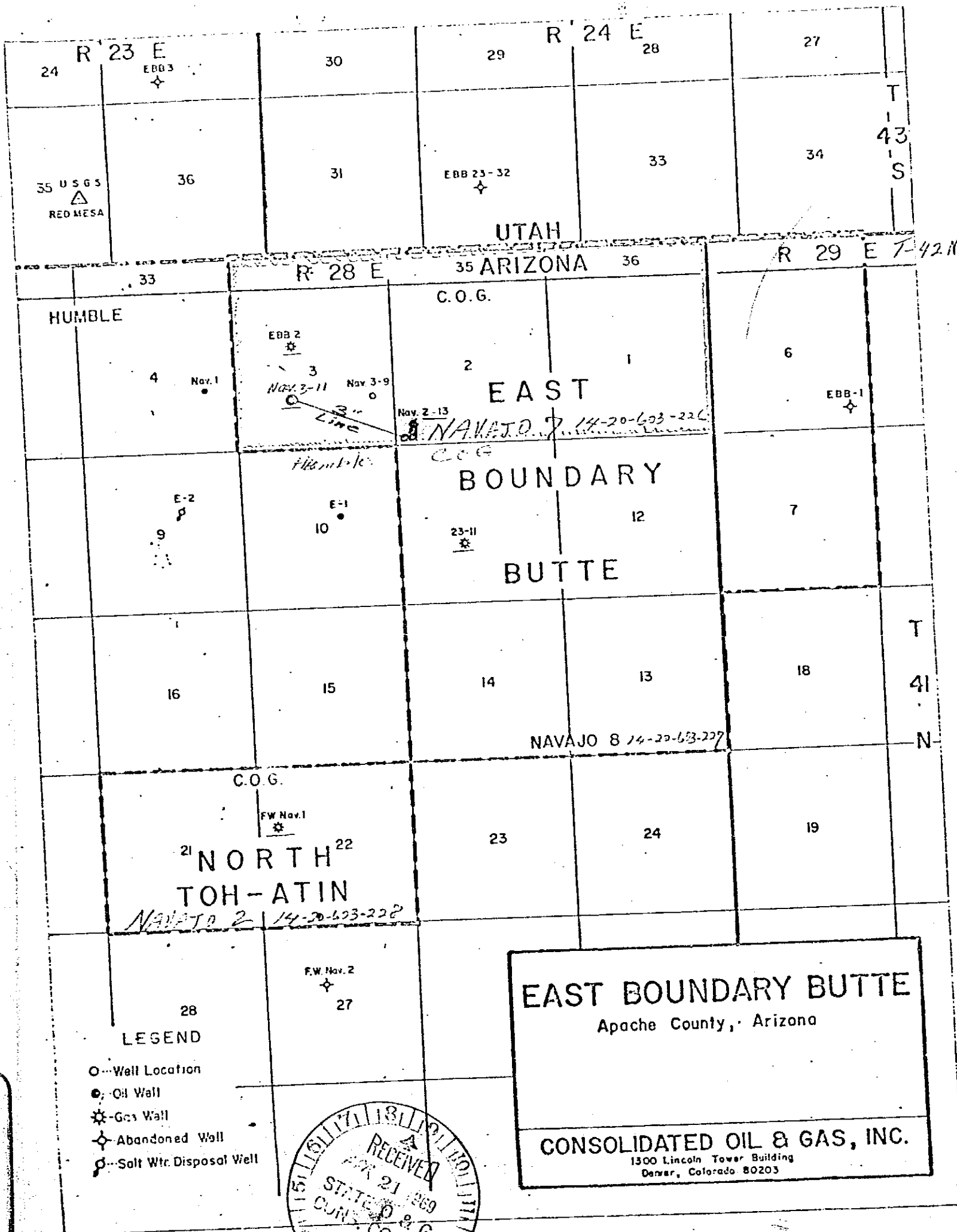
Wayne Rogers
Wayne Rogers

WR/jt

Enclosure



O.K.



481

O.K.

X-Lambert
X-Chesno

April 18, 1969

Mr. Wayne Rogers
Consolidated Oil & Gas
~~1150 East Mexico Avenue~~ 1860 Lincoln St. Suite 1300
Denver, Colorado 80222

Dear Mr. Rogers:

Enclosed is the publication Mr. Bannister requested be sent to you. We have outlined below how the respective well names were derived as to Permits #481, 488, and 490.

- First. Name of operator, i.e.
Consolidated Oil & Gas
- Second. Numerical designation of well in relation to lease.
#1 etc. (Sequential)
- Third. Type of lease.
Navajo
- Fourth. Identification of lease by terminal digital numbers.
-226
- Fifth. Location.
2-41-38-13 or
2-13

Permit #481 Consolidated Oil & Gas #1 Navajo 226 (2-41-28-13).
Permit #488 Consolidated Oil & Gas #2 Navajo 226 (3-41-28-9).
Permit #490 Consolidated Oil & Gas #3 Navajo 226 (3-41-28-11).

We hope this explanation is clear. Call on us for help anytime you think we might be able to aid you.

Yours truly,

James A. Lambert
Administrative Assistant
Enc.
cc: Mr. Joe Larkin, Consolidated Oil & Gas, Denver

481

X 10-25
X H-171

March 4, 1969

Consolidated Oil & Gas, Inc.
Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Re: Consolidated Oil & Gas #1 Navajo
T14N, R28E, G & SRM
Sec. 2: SW/4 SW/4
Apache County, Arizona
Permit 481

Attention: Mr. D. E. Smink

Gentlemen:

Enclosed is Notice of Hearing on your application to
dispose of salt water by injection in the above-
captioned well.

Please advise if we can make room reservations or be
of any other service to you.

Sincerely,

John Bannister
Executive Secretary

vb

Enc.

481



OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
ROOM 202
1624 WEST ADAMS
Phoenix, Arizona 85007
PHONE: 271-5161

February 28, 1969

Consolidated Oil & Gas, Inc.
Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Attention: Mr. D. E. Smink

Gentlemen:

Re: Commission Emergency Order 4-69

Enclosed herewith please find the Commission's Emergency Order 4-69 concerning your application for a salt water injection in the captioned well.

As explained to Mr. Smink at the meeting in this office on February 26th, this temporary order will expire thirty days from date of issue, however prior to that time full hearing will be held and it is hoped that the emergency order may be vacated and permanent order entered.

We will advise you as soon as possible the time and date of the full hearing.

Should you have any questions or if we may be of any help to you, do not hesitate to contact this office.

Sincerely,

John Bannister
Executive Secretary

/vb

Enc.

481



Consolidated Oil & Gas, Inc.

LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

February 28, 1969

46
State of Arizona
Oil and Gas Conservation Commission
1624 West Adams - Room 202
Phoenix, Arizona 85007

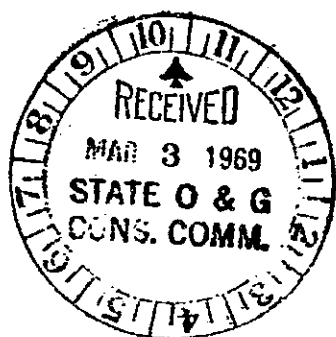
Attention: Mr. James A. Lambert

Gentlemen:

Navajo No. 2-41-28-13
C SW SW Section 2, T41N-R28E
East Boundary Butte Field
Apache County, Arizona

It was a pleasure to meet with you on February 26, 1969, when you granted an emergency order permitting the multi-completion of the captioned well as an oil well pumping from perforations 4739 - 43 and as a salt water disposal well injecting salt water into perforations 4897 - 4909.

It is understood that a formal hearing to review Consolidated's application must be scheduled at the next regular meeting of the Commission. We will be pleased to meet with you at that time.



DES/ss

Very truly yours,

CONSOLIDATED OIL & GAS, INC.

D. E. Smink
D. E. Smink
Petroleum Engineer



LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

Consolidated Oil & Gas, Inc.

February 27, 1969

The Navajo Tribe
Minerals Department
P. O. Box 146
Window Rock, Arizona 86575

Attention: Mr. Perry K. Hurlbut

Gentlemen:

Navajo No. 2-41-28-13
C SW SW Section 2, T41N-R28E
East Boundary Butte Field
Apache County, Arizona

4
At a meeting yesterday, February 26, 1969, the State of Arizona Oil and Gas Conservation Commission granted emergency approval for Consolidated Oil & Gas, Inc. to dispose of salt water in perforations 4897 - 4909 in the subject well. This order will expire in 30 days.

Under State regulations, Consolidated's application to dispose of salt water must be scheduled for a hearing after 10 days' publication. A hearing, which you may wish to attend, has been tentatively scheduled for approximately 10:00 a.m., Wednesday, March 19, 1969. In the event you cannot attend, it would be appreciated very much if you could furnish a letter to the Commission indicating that you have reviewed both the State and U.S.G.S. applications and have no objection to the proposed plan of completing the well.

Very truly yours,

CONSOLIDATED OIL & GAS, INC.

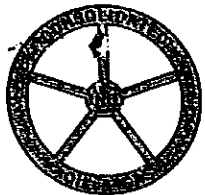
D. E. Smink
Petroleum Engineer

DES/ss

cc: State of Arizona
Oil and Gas Conservation Commission
U. S. G. S. - Farmington
Department of the Interior



2/81



LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

Consolidated Oil & Gas, Inc.

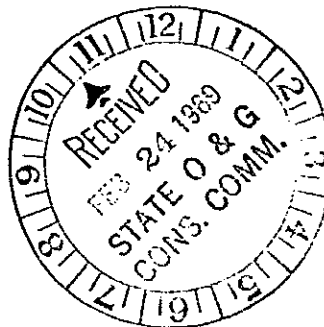
February 21, 1969

4
State of Arizona
Oil and Gas Conservation Commission
1624 West Adams - Room 202
Phoenix, Arizona 85007

Attention: Mr. James A. Lambert

Gentlemen:

Navajo No. 2-41-28-13
C SW SW Section 2, T41N-R28E
East Boundary Butte Field
Apache County, Arizona



Please find enclosed the original and one copy of Form No. 15 (Application to Dispose of Salt Water by Injection into a Porous Formation) making application to multi-complete the captioned well as a dual completion pumping oil and salt water from perforations 4739 - 43 and disposing of salt water into perforations 4897 - 4909.

Also enclosed is a copy of an electric log indicating the base of the fresh water zone in this field. Attached to each copy of Form 15 are:

- a) A copy of a letter of waiver from Humble Oil & Refining Co., dated February 18, 1969.
- b) A copy of a letter of February 18, 1969, submitting a copy of the U. S. G. S. application form and attachments to the Navajo Tribe, Minerals Department.
- c) A copy of a letter of February 18, 1969, making application to the U. S. G. S. to multi-complete the captioned well.

State of Arizona - Oil & Gas Conservation Commission
Page 2
February 21, 1969

- d) A sketch of the proposed multiple completion showing all well-bore equipment.
- e) A plat of the East Boundary Butte field showing all wells within an approximate three-mile radius.

44 We will be pleased to meet with the Commission at approximately 10:30 a.m., February 26, 1969, at which time the Commission will consider this application.

Very truly yours,

CONSOLIDATED OIL & GAS, INC.

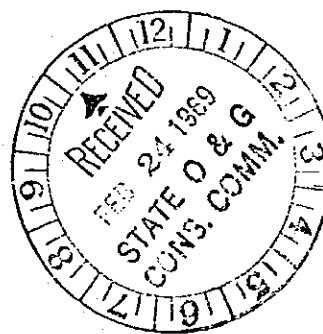
D. E. Smink
D. E. Smink
Petroleum Engineer

DES/ss

Enclosures

cc: U.S.G.S. - Farmington
Department of the Interior
(with attachments)

The Navajo Tribe
Minerals Department
(with attachments)





HUMBLE OIL & REFINING COMPANY

DENVER, COLORADO 80201

PRODUCTION DEPARTMENT
DENVER DISTRICT
J. R. DORROUGH
SUPERINTENDENT

February 18, 1969

POST OFFICE BOX 120
TELEPHONE 534-1251

State of Arizona
Oil & Gas Conservation Commission
1624 West Adams - Room 202
Phoenix, Arizona 85007

Attention Mr. James A. Lambert

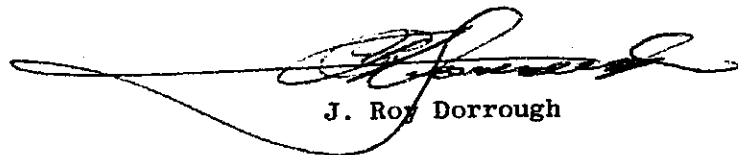
Re: Waiver to Consolidated Oil & Gas, Inc.'s
Proposal to Dispose of Salt Water in
Navajo #2-41-28-13, Sec. 2-T41N-R28E
Apache County, Arizona

Gentlemen:

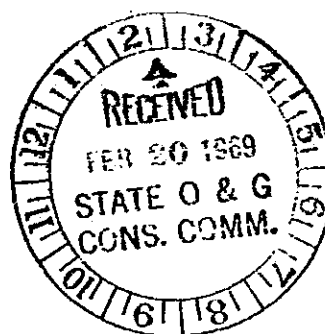
Please be advised that Humble Oil & Refining Company has no objection to the proposal of Consolidated Oil & Gas, Inc. to dispose of approximately 100 barrels of salt water per day into perforations 4,897-4, 909 (+478 to +466 ft. above sea level) in the captioned well.

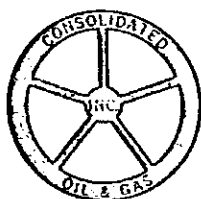
It is understood that the subject well will be so cased and completed that salt water will not be injected (disposed of) into any other strata penetrated by the well and that the completion shall meet any other standards that the Commission has at the present time or may require in the future.

Very truly yours,



J. Roy Dorrough





LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

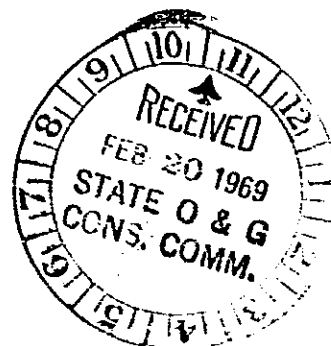
Consolidated Oil & Gas, Inc.

February 18, 1969

United States Geological Survey
Department of the Interior
P. O. Box 959
Farmington, New Mexico

Attention: Mr. P. T. McGrath

Gentlemen:



Navajo No. 2-41-28-13
C SW SW Section 2, T41N-R28E
East Boundary Butte
Apache County, Arizona

Please find attached the original and two copies of Form 9-331, "Sundry Notices and Reports on Wells", requesting approval of a dual-completion plan for the captioned well. Attached to each copy of Form No. 9-331 is a sketch of the proposed well-bore equipment and a plat of all wells within an approximate three-mile radius.

You will note from the plat that Humble Oil and Refining Co. are employing their Navajo E-2 as a salt water disposal well. It is understood that perforations (measured depth) open to injection in that well are at 4286 - 96, 4368 - 72, 4456 - 62, 4508 - 12 and 4890 - 4900.

Personnel from this office have met with Humble personnel concerning the subject dual-completion proposal and Humble has indicated they have no objection to the proposal. It is anticipated that Humble will furnish a letter of waiver which will be presented, together with other exhibits, at a meeting

United States Geological Survey - Farmington
Page 2
February 18, 1969

with the State of Arizona Oil and Gas Conservation Commission
in Phoenix at 10:30 a.m. on ^{Feb} March 26, 1969. You may wish to
attend this meeting if your schedule will permit.

Please advise us if you should desire additional information.

Very truly yours,

CONSOLIDATED OIL & GAS, INC.

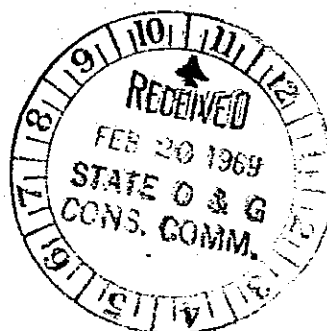
D. E. Smink
D. E. Smink
Petroleum Engineer

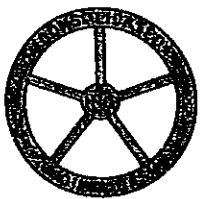
DES/ss

Enclosures

cc: ~~State of Arizona~~
Oil and Gas Conservation Commission
(with attachments)

The Navajo Tribe
Minerals Department
(with attachments)





LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

Consolidated Oil & Gas, Inc.

February 18, 1969

State of Arizona
Oil and Gas Conservation Commission
1624 West Adams - Room 202
Phoenix, Arizona 85007

Attention: Mr. James A. Lambert

Gentlemen:

Navajo No. 2-41-28-13
C SW SW Section 2, T41N-R28E
East Boundary Butte Field
Apache County, Arizona

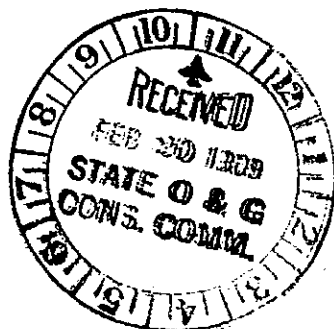
Please find attached a copy of a letter (with attachments)
of this date to the U. S. G. S. concerning completion of the
captioned well.

Your office is currently sending us several copies of
Arizona Form No. 15. As soon as these are received,
we will complete one and submit it.

Yours very truly,

CONSOLIDATED OIL & GAS, INC.

D. E. Smink
D. E. Smink
Petroleum Engineer



DES/ss

Enclosures

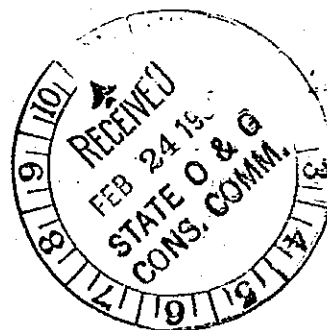
*Set a
letter me re
reclamation only
Scunloche sig.*

February 18, 1969

The Navajo Tribe
Minerals Department
P. O. Box 146
Window Rock, Arizona 86575

Attention: Mr. Perry K. Hurlbut

Gentlemen:



Navajo No. 2-41-28-13
C SW SW Section 2, T41N-R28E
East Boundary Butte Field
Apache County, Arizona

Please find attached for your files a copy of a letter (with attachments) of this date to the U.S.G.S. concerning completion of the captioned well. Arizona Form No. 15 will be completed shortly and we will be pleased to furnish you a copy of that form.

Very truly yours,

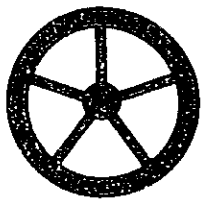
CONSOLIDATED OIL & GAS, INC.

D. E. Smink
Petroleum Engineer

DES/ss

Enclosures

19481



LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

Consolidated Oil & Gas, Inc.

February 6, 1969

State of Arizona
Oil and Gas Conservation Commission
1624 West Adams, Room 202
Phoenix, Arizona 85007

Attention: Mr. James A. Lambert

4✓

Gentlemen:

Enclosed please find two copies of the MicroLaterolog on the Navajo #2-41-28-13, Apache County, Arizona. Sample cuts of this well should be available to various state agencies in two weeks.

Very truly yours,

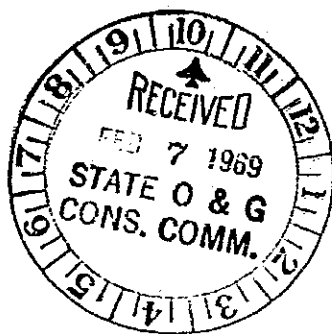
CONSOLIDATED OIL & GAS, INC.

Bill Green

Bill Green, Geologist

BG/jt

Enclosures



January 30, 1969

Mr. Bill Green
Consolidated Oil & Gas, Inc.
Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Re: Consolidated Oil & Gas #1 Navajo
T41N, R28E, G & SRM
Sec. 2: SW/4 SW/4
Apache County, Arizona
Permit #481

Dear Mr. Green:

We note on the logs submitted that a Micro Lateral Log was made. We do not find a copy of that log in the group that we received today. Please furnish the log.

Yours truly,

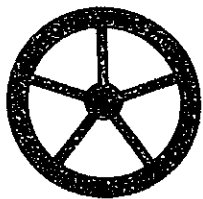
James A. Lambert
Administrative Assistant

JAL:jf

Enc.

Send Sample Instruction Sheet

481



LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

Consolidated Oil & Gas, Inc.

January 29, 1969

State of Arizona
Oil & Gas Conservation Commission
Office of State Oil & Gas Supervisor
1624 West Adam -- Room 202
Phoenix, Arizona

Attention: Mr. John Banister

Gentlemen:

Navajo #2-41-28-13
C SW SW Section 2, T41N-R28E
Apache County, Arizona

Enclosed please find two complete sets of the electric logs
run on the captioned well and also a copy of the drill stem
test data. No cores were cut on this well.

If you should need any further information, please let us know.

Yours truly,

CONSOLIDATED OIL & GAS, INC.

Bill Green

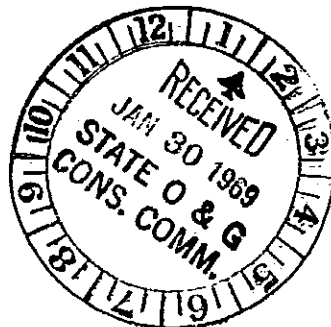
Bill Green, Geologist

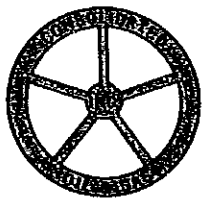
BG/jt

Enclosures

*Sanpler
Micro lateral Log needed*

4/81





Consolidated Oil & Gas, Inc.

LINCOLN TOWER BUILDING
1850 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

January 21, 1969

State of Arizona
Oil and Gas Conservation Commission
1624 West Adams - Room 202
Phoenix, Arizona 85007

76
Attention: Mr. James A. Lambert

Gentlemen:

Re: Navajo No. 2-41-28-13
C SW SW Section 2, T41N-R28E
East Boundary Butte Field
Apache County, Arizona

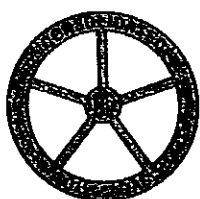
Please find enclosed two copies of Form No. 25, "Sundry Notices and Reports on Wells", reporting the setting and cementing of production casing in the subject well.

Very truly yours,

CONSOLIDATED OIL & GAS, INC.

D. E. Smink
D. E. Smink
Petroleum Engineer

DES/cc
Enclosures



LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

Consolidated Oil & Gas, Inc.

January 16, 1969

State of Arizona
Oil and Gas Conservation Commission
1624 West Adams - Room 202
Phoenix, Arizona 85007

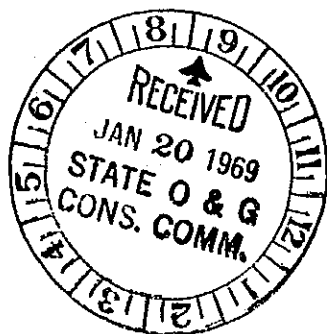
42
Attention: Mr. James A. Lambert

Gentlemen:

Navajo No. 2-41-28-13
C SW SW Section 2, T41N-R28E
East Boundary Butte Field
Apache County, Arizona

Please find enclosed for your files two copies of the daily drilling reports summarizing drilling activity to the casing point on the subject well.

Logs, DST data and appropriate forms concerning production casing and completion details will be furnished your office as they become available or are completed.



Very truly yours,

CONSOLIDATED OIL & GAS, INC.

D. E. Smink
D. E. Smink
Petroleum Engineer

DES/ss

Enclosures

PHONE: 325-9232

641 WEST BROADWAY

FOUR CORNERS SAMPLE CUT ASSOCIATION

P. O. BOX 899
FARMINGTON, NEW MEXICO 87401

January 15, 1969

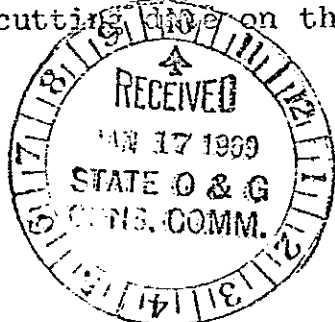
Mr. Jim Scurlock
Oil & Gas Conservation Commission
State of Arizona
Room 202
1624 West Adams
Phoenix, Arizona 85007

Dear Jim:

The Following wells from Arizona have been delivered to
the cut within the past two weeks.

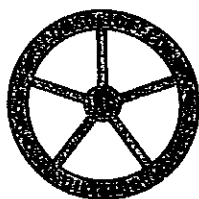
- 480 E.F. Doherty, #1-15 Navajo
Sec.15-7N-7W
Apache Co. Arizona
- 478 C.Little & E.Richardson, #1 Tohotso
Sec.25-35N-29E
Apache Co. Arizona
- 481 Consolidated, Navajo #2-41-28-13
Sec.2-21N-28E
Apache Co. Arizona
- 477 Union Oil, #1-166 Navajo
Sec.20-6N-6W
Apache Co. Arizona (Tite at present)

Since these have not been sent out on an order list I can not
give you a cutting time on these.



Very truly yours,

Jo Ratcliff
Jo Ratcliff
Manager



LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

Consolidated Oil & Gas, Inc.

January 3, 1969

State of Arizona
Oil and Gas Conservation Commission
1624 West Adams - Room 202
Phoenix, Arizona 85007

Attention: Mr. James A. Lambert

Gentlemen:

Navajo No. 2-41-28-13
C SW SW Section 2, T41N-R28E
East Boundary Butte Field
Apache County, Arizona

Please find enclosed two copies of Form No. 25, "Sundry
Notices and Reports on Wells" along with a copy of U. S. G. S.
Form No. 9-331 reporting the setting and cementing of sur-
face casing in the subject well.

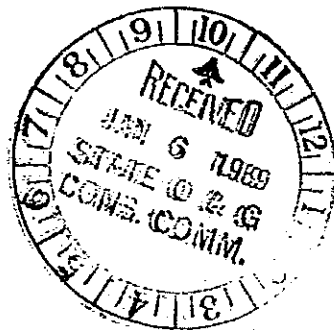
Very truly yours,

CONSOLIDATED OIL & GAS, INC.

D. E. Smink
D. E. Smink
Petroleum Engineer

DES/ss

Enclosures



December 13, 1968

Mr. Vernon J. Lowe
Consolidated Oil & Gas, Incorporated
Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Re: Consolidated Oil & Gas #1 Navajo
T41N, R28E, G & SRM
Sec. 2: SW/4 SW/4
Apache County, Arizona
Permit #481

Dear Mr. Lowe:

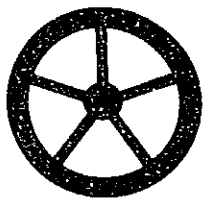
Enclosed is an approved Application For Permit To Drill, our receipt #9563, the Application For Permit from the U.S.G.S., our Permit To Drill #481, and the Surveyor's Plat on which you will note that we altered the dedication to the W/2 SW/4.

Yours truly,

James A. Lambert
Administrative Assistant

jf
Enclosures

481



LINCOLN TOWER BUILDING
1860 LINCOLN STREET
DENVER, COLORADO 80203
(303) 255-1751

Consolidated Oil & Gas, Inc.

December 11, 1968

State of Arizona
Oil and Gas Conservation Commission
1624 West Adams - Room 202
Phoenix, Arizona 85007

Attention: Mr. James A. Lambert

Gentlemen:

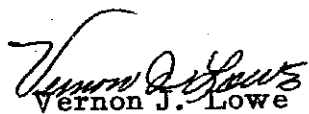
Navajo No. 2-41-28-13
C SW SW Section 2, T41N-R28E
East Boundary Butte Field
Apache County, Arizona

We are enclosing two copies each of Form No. 3 and U. S. G. S
Form No. 9-331C on the captioned well, along with two copies
of the Certified Location Plats.

Also enclosed please find our check No. 29511 in the amount
of \$25.00 to cover the permit fee.

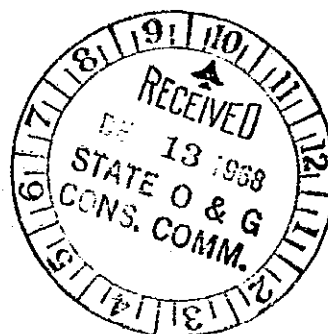
Yours very truly,

CONSOLIDATED OIL & GAS, INC.


Vernon J. Lowe
Drilling Superintendent

VJL/ss

Enclosures



481

December 2, 1968

Consolidated Oil & Gas Incorporated
Suite 1300
Lincoln Tower Building
1860 Lincoln Street
Denver, Colorado 80203

Attention: Mr. Vernon Lowe

Gentlemen:

We are enclosing the forms requested by telephone this date. We have your Performance Bond #31380-13-99-68 on file in this office. It is a blanket bond for \$25,000 and will be sufficient for any wells you may drill in the State of Arizona. This bond is now covering Permit #22 and Permit #69.

If we may be of further assistance, please let us know.

Yours truly,

James A. Lambert
Administrative Assistant

jf
Enc.